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NERVOUSNESS
INDIGESTION
AND PAIN

"What do you write?" said Gobind.

"I write of all matters that lie within my understanding, and of many that do not."

"Even so," said Gobind . . . "Tell them first of those things that thou has seen and they have seen together. Thus their knowledge will piece out thy imperfections. . . ."—KIPLING.

"I propose to give you a plain tale of my own experience, feeling sure that in so doing I shall appeal to similar experiences in your own."—J. F. GOODHART.

"If I were going to write a book on indigestion I should first devote myself to a volume on diseases of the nervous system."—J. F. GOODHART.

"The sorrow which has no vent in tears may make other organs weep."—MAUDSLEY.

"When a woman thinks she is ill when she is not, then indeed she is very ill!"—Author unknown.

"In dealing with disease think of disordered function as much as of damaged structure."—J. A. LINDSAY.

NERVOUSNESS INDIGESTION AND PAIN

by

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NERVOUSNESS, INDIGESTION, AND PAIN

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PREFACE

"The practice of medicine is an art, not a trade; a calling, not a business; a calling in which your heart will be exercised equally with your head. Often the best part of your work will have nothing to do with potions and powders, but with the exercise of an influence of the strong upon the weak, the righteous upon the wicked, of the wise upon the foolish."—SIR WILLIAM OSLER.

"There is no disease or disorder which does not in some degree affect the patient's emotional and mental life, nor is there any such condition which is not, in its turn, favorably or unfavorably affected by the patient's feelings and thoughts."—AUSTEN F. RIGGS.

"Here is a great group of patients in which it is not the disease but the man or the woman who needs to be treated."—FRANCIS W. PEABODY.

"A good physician is like a good father."—Tamil proverb.

"Gentleness and cheerfulness, these come before all morality; they are the perfect duties."—R. L. STEVENSON.

"He is the best physician who is the best inspirer of hope."—S. T. COLERIDGE.

"A man without a smiling face should not open a shop."—Chinese proverb.

THIS IS A "DIFFERENT" SORT OF BOOK—ONE WHICH DEALS MORE WITH SICK unhappy persons than with their diseases, more with symptoms and their meaning than with disease entities, more with the handling of patients than with the giving of medicines, and more with the puzzling, poorly understood and poorly described abdominal discomforts and indigestions than with the well-known organic diseases such as ulcer, cholecystitis and cancer. It is a different book also in that it deals not only with those diseases which arise in the digestive tract but with those many disturbances of nervous, arthritic or endocrine origin which the gastro-enterologist has to struggle with every day. If cases of migraine, nervous breakdown, constitutional inadequacy, pelvic disease, and spondylitis are daily taking up much of his time, why shouldn't a good discussion of these diseases be included in every book designed to help him? Finally, this book is different in that it at least mentions those common but poorly understood conditions, such as pseudo-cholecystitis, pseudo-ulcer, and pseudo-appendicitis, which the average writer forgets to talk

PREFACE

about because there are no headings for them in the old text-books which he used as a pattern. This book is different also in that in it the writer takes the reader with him into his office and there shows him how an internist's mind works as he tries to make a diagnosis and as he handles difficult patients. I think this is what every thoughtful graduate student wants most to see.

In planning some of the chapters I was influenced by a conversation I had years ago with a keen young clinician who drove me home from a medical meeting. As we rode along he kept me busy answering a barrage of questions as to how to handle and talk to and treat the tired, nervous and always-ailing type of patient. As he said, after years of training in a fine school and hospital, he was distressed, on joining a clinic group, to find how ill prepared he was to take care of those many neurotic and psychopathic patients who came each day complaining of abdominal discomforts.

Because he soon saw that the degree of his success in the practice of medicine was to depend largely on the degree to which he could satisfy these people, he promptly began to look about for help with the problem. What he wanted most was information as to the actual handling of these persons. As he said, "What I want to know is how to tell a woman that her troubles are functional in nature without getting her angry at me. How do you do it? How do you explain the presence of pain for which no cause can be found? What do you say when, after telling a woman that what she needs is rest, she answers that she has had months of it and is no better? How do you account to her for her overwhelming sense of fatigue?" These and many more questions were fired at me, until I wished we had a stenographer with us to take down our talk. My thought was that if my answers were being of help to my companion, they might be helpful to many another young physician starting out in practice. At last, after several years in which I have been engrossed with many tasks, I have found time to write out what I said that day and much more that has since come to mind.

I started writing with the idea of preparing a third edition of my "Nervous Indigestion," but soon I had added so much new material and had so completely rewritten what I used of the old that I realized that what was growing under my hands was a new book. Like the old one this is a chatty, informal volume based almost entirely on my own experience with patients. I have long had the idea that when a man describes faithfully what he himself has heard and seen he is more likely

to be right and useful than when he rehashes what he has read somewhere. Actually, there is little in this book that I was taught in college or that I found later in the literature. I had to learn most of it from experience. Some I learned from my colleagues at the Mayo Clinic.

I need hardly explain to fellow gastro-enterologists why I have chosen to discuss in one book nervousness, indigestion, and pain. Because these are the three main complaints that we commonly find associated together in one patient we must all of us be prepared to study and treat them together. We cannot very well treat a woman's indigestion while a psychiatrist treats her mind and a neurologist treats her pain. I discovered this years ago when a psychoanalyst referred to me a psychopathic woman with an irritable digestive tract. He said, "You take care of her colon and I'll take care of her mind," but this division of labor didn't work well, because on the days when her colon was "screaming at her" she couldn't listen to his psychotherapy, and when she came complaining to me about a mucous colic I hated to start any treatment until I had found out what particular mental conflict had that day thrown her nerves into an uproar.

No, the gastro-enterologist just has to be a psychiatrist of sorts, and no matter how much he may dislike spending hours each week trying to teach neurotic persons how to live more sensibly, he must do this sort of thing if he is to help them at all. Furthermore, if he is to avoid ordering many needless operations and scaring many physically sound persons half to death with diagnoses of serious organic disease, he must become expert at recognizing hysteria, anxiety neurosis, hypochondriasis and mild forms of insanity. Persons with the first symptoms of these diseases rarely go to a psychiatrist, they go to an internist or a gastro-enterologist, and since there is not much chance of our ever changing this behavior, we clinicians must prepare ourselves to take care of these persons intelligently and properly.

In this book much space is given to the taking of an adequate history and the art of making a diagnosis from the symptoms and from what is observed of the patient as he or she goes through the office. There are long chapters on the handling of the nervous patient and on what to say and not to say during the interview. There is much on (1) the common neuroses that are seen daily by the internist, (2) the common functional digestive disorders, (3) those organic diseases which sometimes produce a puzzling syndrome, (4) a few rare and poorly understood syndromes, (5) that common disease, constitutional inadequacy,

and (6) a number of puzzling types of pain. There is much on nervous breakdowns, migraine, food-sensitiveness, and insomnia—all important diseases commonly seen by the gastro-enterologist, and there is a long chapter on the treatment of the common neuroses. There isn't much on the common organic diseases of stomach and bowel because these have been well described by other men.

If here and there throughout this book I speak of diagnostic mistakes and express my dissatisfaction with some phases of modern medical practice, it is not because I lack devotion to the great profession into which I might almost say I was born. I believe with Robert Louis Stevenson that there is no profession with members more honorable, more generous, or more anxious to do what is best for those who come to them for help. But each day as I review the reports brought to me by men and women who have been through one diagnostic mill after another, I am distressed at seeing the bad results of mistakes made simply because someone who did not have the time to take a good history or to get acquainted with the patient, accepted unhesitatingly a wrong or unimportant diagnosis made by a laboratory girl or a poorly-trained roentgenologist. Often if but one or two more questions had been asked the correct diagnosis would have been obvious.

As I wrote this I was called away to see a young woman with her abdomen scarred from seven separate operations! It seemed clear from her record and her behavior as I talked to her that she was hopelessly psychoneurotic, and inadequate to stand up to the strains of life. But why hadn't her surgeons seen this? I looked over the letters that some of them had written and found such statements as, "I thought this woman was a psychoneurotic, but the roentgenologist thought he had seen signs of an ulcer (or a kink, duodenal stasis, slowly emptying gall-bladder, retrocecal appendix, or ptosed kidney) and *I thought we should give her the benefit of the doubt and explore.*"

This book has been written to help young physicians to see that in most such cases *one gives the patient the benefit of the doubt when one does not explore.* It was written also to show that today we are trusting too much to our new methods of diagnosis, that there are some bad and dangerous trends in medical practice, that difficult problems are arising, and that the old methods of taking an adequate history, observing the patient, and thinking about the diagnosis just cannot be dispensed with.

As President Ford of the University of Minnesota once said, one of the finest things about the medical profession is that when its members drift

into bad practices, they do not wait for some outside agency to reform them; they turn to and reform themselves. One of our great failures in the past has been to neglect to introduce our medical students to the insane and particularly to those innumerable relatives of the insane who make up so large a percentage of our clientele. I am glad to see that today many medical schools are making an effort to teach more psychiatry, and I hope that some day they will start making a point of demonstrating each week in the amphitheater, not the usual cases illustrating the rarest diseases known, but cases illustrating those common neuroses which the students will see every day when they get out into practice.

More teaching of this type may have to be turned over to clinical professors, men who have been out in the world and have learned how medicine is practiced there. The young professor who has never ventured beyond the doors of that scientific cloister, the medical school, must always carry the heaviest part of the burden of teaching. I have great admiration for what he is doing, but I cannot expect him to teach a type of medicine that he had little chance to learn in laboratory and ward. This book was written to help him, and to keep him from forgetting that there is such an organ as a brain, that it has many diseases *all its own*, and that the symptoms of some of these appear first in the abdomen.

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NERVOUSNESS
INDIGESTION
AND PAIN

Chapter I

WAYS IN WHICH EMOTION CAN AFFECT THE DIGESTIVE TRACT

*"... The thought whereof
Doth, like a poisonous mineral, gnaw my inwards."*

—SHAKESPEARE, Othello.

*"I feel such sharp dissension in my breast,
Such fierce alarums both of hope and fear,
As I am sick with working of my thoughts."*

—SHAKESPEARE, Henry the Sixth.

"The wulf shote thryes for the grete fere that he had."*—CAXTON's edition of Aesop's Fables.

"I myself knew a gentleman, who having treated a great deal of good company at his house, three or four days after bragged in jest (for there was no such thing) that he had made them eat of a baked cat; at which, a young gentlewoman, who had been at the feast, took such a horror, that falling into a violent vomiting and a fever, there was no possible means to save her."—MICHEL DE MONTAIGNE.

"I read the Daily News before dinner and I get so darn mad I can't digest my food, and my evening is spoiled. I spend my nights composing caustic letters to the editors, which are never sent, and I don't get my sleep."—ETHEL CONEY, Letter published in Time, 1934.

"The agitations of her soul would communicate themselves directly to her body, so that if you were holding her hand when she was troubled, you would feel it vibrant and trembling like a minnow freshly taken from the net."—LLEWELYN POWYS, Earth Memories.

WHAT DOES A PHYSICIAN MEAN WHEN HE SAYS THAT A PATIENT HAS NERVOUS indigestion, and just how does a tired, irritable or poorly balanced brain produce distress in the abdomen? Theoretically, nervous influences might stimulate or depress or alter any of the several functions of the digestive tract such as motility, secretion and absorption, or they might alter these functions by cutting down on the amount of blood sent to the

* Defecated

stomach or bowel, or they might in some way make it easier for bacteria to attack the mucosa and produce ulceration and inflammation. Actually, as will be seen from what follows, all these effects have been observed.

A DEEPENING OF THE RHYTHMIC SEGMENTING MOVEMENTS OF THE BOWEL

Some thirty years ago I sat studying the intestinal movements of a man with a fistula into the jejunum. I had a balloon in the gut, connected with the usual recording tambour. Suddenly I noticed an increase in the amplitude of the contractions, and looking about for the cause I heard the rumble of the steam table coming down the hall with the patient's luncheon. He was hungry and had heard it first. In the case of another man with a similar fistula, I noted sometimes an increase in intestinal activity when I questioned him about his favorite foods, and in a woman with a large hernia and most of her bowel out under her skin I could see rush waves going down the bowel shortly after luncheon arrived.

AN INCREASE IN GASTRIC ACTIVITY WITH APPETITE

Years ago Danielopolu and Carniol reported that the stomach of a hungry man became active when he watched another man eat, and similar observations have been made in animals. Some observations have suggested that food which is palatable and eaten with pleasure will leave the stomach earlier than will food that is not palatable or is not eaten with pleasure.

A PSYCHIC INCREASE IN COLONIC ACTIVITY

The most striking evidence I ever saw of a psychic increase in intestinal tonus and activity was observed in a jolly *bon vivant* whose anal sphincters had been destroyed by a series of operations. As a result, some of the rush waves in the small bowel, instead of stopping as they normally do at the ileocecal sphincter or somewhere in the colon, ran on down to produce a bowel movement. In this man the sight and smell and even thought of food produced rushes. They were most annoying at breakfast time, when after the night's rest the bowel was most sensitive, and as a result he had to eat his breakfast in the bathroom. During the rest of the day, except at mealtimes, he had little difficulty unless some practical jokers among his cronies, knowing his infirmity, began to discuss before him the relative merits of Hungarian goulash and beef-steak and onions. He knew the location of every restaurant in his neighborhood and always crossed over to the other side of the street when he had to pass one!

OTHER DISTRESSING EFFECTS OF EMOTION

A tense, high pressure type of sales manager with a bleeding ulcer once told me how sensitive he was to excitement. He loved poker, but it always made him so sick that he seldom dared get into a game. Especially if luck started to come his way, his abdomen would bloat, he would promptly get big hives all over his body, he would feel feverish, his nose would stop up, and he would become nauseated and chilly. Worse yet, if he happened to get a "full house" his face would turn red and he might have to get up and go quickly to vomit. The same set of reactions came if he went to a football game or got excited over anything.

As I have talked to patients with such troubles I have sometimes been reminded of what Osler once said, that the comedy of life is spread before us "and nobody laughs more often than the doctor at the pranks Puck plays upon the Titanias and the Bottoms among his patients." Perhaps the cruellest such prank I ever saw had as its butt a young woman who consulted me about an infirmity which threatened to interfere with her ever finding a mate. In her case, any caressing by a man so increased the tone and activity of her digestive tract that she was promptly summoned away by a call of nature so imperative that it could not be denied, and she had to flee just when she wanted most to remain. Another young woman was much handicapped by her tendency to belch when petted a bit! I have seen several other young women of this type who were unable to go out into society because any excitement, especially of a sexual type, would bring loud rumbling in the bowel, a mucous colic, diarrhea or perhaps vomiting. I have known several men who were divorced by outraged wives because of their having to stop and run to the toilet whenever they became sexually excited.

NERVOUS DIARRHEA

The purging effect of fear or anxiety is, of course, well known. The earliest reference to it that I have found is on the Taylor cylinder in which Sennacherib (about 700 B.C.) describes his battle with two young kings of Elam. He says: "The vehemence of my battle line like a bull overwhelmed them. . . . To save their lives they trampled over the bodies of their soldiers and fled. Like young captured birds they lost courage. With their urine they defiled their chariots and let fall their excrements."

Another early observation along this line is to be found in the representation by an ancient Egyptian sculptor of a bull defecating forcefully as it is attacked by a lion, and another is to be found in Caxton's edition of Aesop's fables where a wolf is described as defecating repeatedly when frightened at the sight of what it thought was a large dog. There is a story told of Napoleon, that once, when for a dangerous mission he wanted a man with iron nerve, he ordered several volunteers before a firing squad, and chose the man who showed no tendency to move his bowels. I am coming to believe that in a considerable percentage of those many cases of diarrhea in which we physicians cannot make a diagnosis, the cause is uneasiness or attacks of panicky fear. I have discussed this in Chapter XXXI.

A few sensitive persons suffer from looseness of the bowels for a day or two before so mild an adventure as a railway journey. Others have diarrhea all day before they are to speak in public, and I have known ministers who continued to suffer in this way after years of preaching. I know a young hotel hostess who, every time she comes down into the lobby to start her guests on the evening's festivities, has to rush away again for a few minutes.

As one might expect, this tendency to nervous diarrhea can often be shown to be inherited, and it has even been bred into a strain of rats. When Calvin S. Hall noted that a certain percentage of rats, made uneasy and anxious by being left out in the open in a tub, urinated and even defecated, he started breeding males and females of this particularly worrisome and reactive type, and soon secured a strain of animals most of which would defecate under excitement. The probability is, then, that if men and women with a colon susceptible to emotion were to intermarry for a few generations most of their children would have a bad time with nervous diarrhea.

Koehler, in his book on the mentality of apes, tells how the sight of a "teddy bear" so frightened his chimpanzees that they were immediately and thoroughly purged, and anyone who has had to handle laboratory monkeys knows how violently their colon can empty itself under the influence of excitement and fear.

Hatcher and Weiss discovered a spot in the brain where the experimental application of tiny doses of certain drugs caused defecation, and it may be that some of the misery of those nervous persons who are often distressingly aware of their colon is due to an oversensitiveness of this and other centers in brain and cord.

THE SUPPOSED SEAT OF THE EMOTIONS

The effects of emotion on the digestive tract such as I have been describing, with gurgling, rumbling and loosening of the bowels, must have been noted by primitive man, and this doubtless accounted for his location of the soul in the abdomen. According to Daisy Bates, who spent her life among the Australian aborigines, the only expression which they have for sorrow is literally "bowels moving." The Polynesians speak of a big-hearted man as *opu nui*, or "big abdomened," and obviously, the Hebrew prophets thought along the same lines. In the King James translation of the Bible one reads such statements as "Joseph made haste, for his bowels did yearn upon his brother," and "Where are the soundings of thy bowels towards me?" and "My bowels shall sound like a harp for Moab." In the more recent translations the word "bowels" has been changed to the equally erroneous "heart" to conform with our present-day ideas. That we still cling, unconsciously, to the old idea can be seen from the fact that we so often praise a courageous man by saying he has "guts." I understand that "getting one's bowels into an uproar" is a common army expression for getting all stirred up.

As many persons say, fear or anxiety strikes them in the pit of the stomach or they have a feeling of sinking in the epigastrium. On occasions, I have felt painful emotion grip me instantly in the epigastrium or along the lower edges of my ribs. I remember a clerk who told me that pain hit him in his stomach every time he saw the floorwalker headed toward his counter with blood in his eye. Some persons say when seized with distressing emotion, "I feel sick all over."

CHANGES IN THE INTESTINAL GRADIENTS

Ever since the day following the earthquake and fire in San Francisco when I saw a poor girl thrashing about in the convulsions of major hysteria and acting for all the world like a chicken with its head just cut off, it has seemed to me that much of the distressing hypersensitiveness of nervous men and women must be due to a loss of cerebral control over centers situated in the lower part of the brain. And just as the higher centers are the first to fail under the influence of overwork, worry, loss of sleep and all the other producers of fatigue, so also any toxic agent that interferes with the metabolic processes in the intestinal tract is likely to injure the highly sensitive and active proximal segment of the small bowel more than it does the less sensitive and more sluggish terminal

segment. The result might well be a flattening or reversal of the gradients of irritability and force which probably determine the direction of peristalsis, and with this there is likely to go a loss of appetite, perhaps with nausea and even vomiting. Another cause for a reversal of the gradients in the first two or three feet of the small bowel might be a storm coming down the vagus nerves to the place where they enter the gut in the upper end of the jejunum. This storm is probably similar to that which causes the vomiting of seasickness, migraine, Ménière's disease, and increased intracranial pressure.

A reversal of the intestinal currents probably has much to do with the constant nausea or loss of appetite that afflicts some nervous, psychopathic, markedly fatigued or unhappy women. I have known sensitive persons who couldn't eat much for three days after losing their temper, and many persons cannot eat when tired or excited or thrilled. Thus, a big strong, but sensitive Irishman, always a great admirer of Lincoln, found himself one day in Lincoln's old home and with the privilege of having luncheon at his hero's table. He was so overwhelmed with emotion that he could not eat a bite. Many a sensitive young man or woman when thrilled at going to dinner with a person of the opposite sex has a similar experience.

EMOTIONAL INHIBITION OF PERISTALSIS

Gastric Stasis. It has long been known even to the layman that disgust, excitement, fear, anxiety, anger, fatigue, pain or injury will stop the movements of the digestive tract. A child who has suffered injury or severe fright shortly after a meal is likely, after several hours, to vomit the food, quite undigested. I remember once examining a neurotic young man with the roentgenoscope and finding every bit of a barium meal eaten six hours before still in his stomach. There were no symptoms or signs of organic disease about the pylorus so I began questioning him and learned that all that day he had been upset over a political row in his lodge. Later, when he had calmed down, his stomach emptied perfectly. Miller and his associates reported similar observations on students worrying over an examination, and Cohnheim and Carnot found, while studying animals with duodenal fistulas, that uneasiness, excitement or fear would close the pylorus and keep it closed for some time. When, in 1896, Cannon began with roentgen rays to study the activity of the stomach and intestine in cats, he discovered that when the animal became uneasy or angry the movements stopped.

Stoppage of Intestinal Movements. Sinelnikoff described how, one day as he was recording the contractions of a Vella loop of bowel in a dog, the crash of a falling window frightened the animal and immediately caused a lessening of tone and activity. In sensitive animals the mere presence of a stranger in the room was enough to inhibit the movements of the bowel. Using abdominal windows in rabbits, Sinelnikoff confirmed Auer's observation that distress will stop peristalsis.

Borchardt, who worked with animals with a segment of intestine under the skin, found it hard to interpret the results of experiments because the tone and activity of the gut were constantly responding to slight stimuli such as the footsteps of someone, a pat on the head, a scolding word or the miaowing of a cat in an adjacent room. All these reactions came to an end when the nerves supplying the recording segment were cut.

Rossbach, who watched coils of bowel contracting under the thin abdominal wall of a woman, noticed that fright or anger would stop the activity for about ten minutes. Sinelnikoff studied a woman with an artificial esophagus made from a segment of small bowel transplanted under the skin of the thorax. When this segment was active a harsh word spoken to the woman would stop the movements for several minutes.

One of the most interesting observations on the paralysis of the gut that comes with alarm is that made by Carl Akeley while stalking elephants in Africa. He noticed that their loud intestinal rumblings stopped the moment they perceived his presence near them.

Some animals, like some men, appear to be too insensitive to show such reactions. Thus, in my laboratory, Gianturco was able to record good gastric and intestinal activity in many male cats which were none too pleased over their confinement on an animal board.

Constipation. As I shall point out later, in many cases constipation is due purely to nervous strain. Under the roentgenoscopic screen the bowel of the constipated person seldom looks weakened or relaxed; instead, it generally appears to be spastic and more than usually irritable and contracted. At first thought one might expect such an increase in the irritability of the digestive tract to result in diarrhea, but commonly it does not. One reason probably is that most of the contractions of such a bowel do not travel peristaltically.

Dunbar, in her book on the effects of emotion, quoted many writers who have commented on the severe type of constipation that comes when some persons go into a depressed state. In some of these cases

roentgenologic studies of the bowel have shown stagnation of feces lasting for more than two weeks.

Some constipated persons have told me that they know their bowels would move normally if only they could get the right amount of excitement out of life; in them a certain amount of worry causes constipation and more causes diarrhea. Some persons have remarked also that the meals that are eaten with pleasure and in good company are more likely to be followed by a normal bowel movement than are those meals that are eaten hurriedly at a lunch counter.

VOMITING

That the currents in the digestive tract can be reversed by worry was well shown by a nervous young woman who one day received a menacing letter from the income tax collector. This so frightened her that, instead of going to see what the trouble was, she took to her bed and vomited day and night for a week. She stopped only when, after learning what had happened to upset her, I went to the Custom House and appeased Uncle Samuel with \$3.85; all of which, incidentally, shows that much good medicine does not come out of bottles. Another young woman, whose case I will describe later, vomited for two weeks when she learned that her mother had cancer of the stomach. A famous opera singer vomits for hours before she goes on the stage for a performance.

Lehman and Gibson, who studied a man with a jejunal fistula, saw reverse peristalsis in the bowel at those times when the man was depressed. Years ago, I found that in animals, vomiting is ushered in by reverse waves in the small bowel, and since then several physiologists have noticed the phenomenon.

Some persons seem to have inherited the faculty of vomiting easily while others vomit only with difficulty. I wonder often if those women who regurgitate easily have inherited the faculty from some animal ancestors who needed it to feed their young. Often when I see vomiting due to fear or excitement I think of the snake that one day I met on a mountain trail. When it saw me coming it wanted to get away but it could hardly move because it was so distended and weighed down with a rat which it had recently swallowed. When I stopped to observe it, it quickly regurgitated its meal, and then, freed from encumbrance, it glided away to safety. It may be that it was this sort of need for a quick lightening of the body, preparatory to a tremendous effort to escape

from danger, that gave animals the faculty of emptying in a moment both stomach and colon.

Everyone knows of persons who, in a restaurant, almost vomit when disgusted with the appearance of the food, the plates, the tablecloth or even the waitress.

Many women and even men will vomit whenever they run into any situation that brings nervous tension or anxiety. Thus, in his book, "A Fortune to Share," Vash Young wrote, "In my first days as a salesman I often became so nauseated as I contemplated my next calls that I lost my food . . . not once but time after time, and due always to fear." I know the head of an advertising firm who often, on the way to an important conference, gets so nauseated that he has to telephone and say that he has been detained. A hypersensitive man once wrote me, "I cannot read even a few lines because if I do I soon find myself struggling for breath and with my stomach heaving." Others vomit from disgusts not associated with any thought of food. Thus I have known a few women who were nauseated or who actually vomited after intercourse with an unloved husband and I knew a girl who was nauseated for weeks after breaking her engagement.

More curious is the type of person who vomits when excited pleasantly or overjoyed. I know men and women who vomit from happiness such as they experience on returning to their loved ones after a trip, and I have known a number of girls who had to get out of the car to vomit while on their way happily to a dance. One such young woman confessed to me that when her future husband proposed to her in a restaurant, she promptly vomited. As she said, with a wry smile, "He was so upset by this that he didn't mention the subject again for a year, or until I began to think he never would." Another such woman, a lovely person with a highly sensitive nervous system, had to rush for the toilet when her husband-to-be slipped a diamond ring on her finger.

FLATULENCE

In certain predisposed persons, excitement produces flatulence. Thus, Casanova mentioned in his Memoirs an experience he had with a girl who, under sexual excitement, always passed large quantities of gas. A sensitive man once told me that occasionally when he reads a stirring story that fills his eyes with tears, his colon fills with gas. One day I went with a friend and his wife to the office of a nose specialist where the lady was to have an antrum washed out. As the trocar was pushed through the

antral wall the woman cried out, and instantly her husband, a neurotic university professor, began to belch violently and repeatedly.

Dr. Stafford Warren once called my attention to the fact that the distress of having ureteral catheters passed up into the kidneys will, in some persons, promptly fill the bowel with gas. This can be demonstrated easily by comparing the appearance of the films made just before catheterization with those made just after.

BLUSHING OF THE INTESTINAL MUCOSA

Years ago I suggested that just as the skin of sensitive persons blanches or blushes under excitement so also the mucosa of the bowel might react to the same stimuli. Since then White and Jones have observed the phenomenon while looking into the sigmoid flexure of a student. He blushed inside his bowel when embarrassed by the entrance of a young woman into the room! This phenomenon may disturb the mechanism which normally removes gas from the digestive tract, and it may explain the sudden attacks of flatulence seen in nervous persons. This change in the circulation of the mucosa of the bowel might also affect the absorption of other substances besides gas.

THE PSYCHIC SECRETION OF THE DIGESTIVE JUICES

Increased Salivary Flow. From time immemorial it has been known that the thought or sight or smell of food can make the mouth water or, as Brillat-Savarin would say, "innundate with pleasure." Macewen once described the case of a man who had a fistula of Stensen's duct which allowed saliva to run down over his cheek. Because the mere mention of food was enough to start a copious flow of secretion, the fellow begged his friends, as they loved him, never to speak of eating when in his presence. He was like the boy with mumps who suffers if anyone around him mentions grapefruit.

Br'er Rabbit "dribbled at de mouf" when he saw food that he wanted, and anyone who has owned dogs knows how some will drool as they look at food. Primitive man could see for himself that under the influence of psychic stimuli the salivary glands prepare for the approaching feast, but only with the coming of the present era of experimental science, could it be shown that the gastric glands are similarly stirred to action.

Psychic Flow of Gastric Juice. Since 1843, when Blondlot first noticed, while working with animals with a gastric fistula, that the simple tasting

of food would cause secretion to appear, many research workers have demonstrated the psychic secretion of gastric juice under the influence of sight, smell, chewing or even the thought of food. As one would expect, much depends on the temperament of the animal or the man. Sensitive individuals who enjoy food show a better response than do those who are stolid or not hungry. The importance of having food nicely served was emphasized by several workers who found that in the case of some university students, the sight of appetizingly prepared food was more effective in producing gastric secretion than was the smell.

Psychic Stimulation of Pancreatic Juice. According to a number of experimenters on animals there is a slight psychic secretion of pancreatic juice which is dependent on stimuli going down the vagus nerves. So far as I know, a psychic secretion of this type has not been demonstrated in patients with a pancreatic fistula.

Psychic Stimulation of the Flow of Bile. There is not much laboratory evidence available to show that there is a psychic influence on the flow of bile, but I have seen a number of mercurial persons of Latin origin who confessed to having become jaundiced a few hours after indulging in a debauch of temper. Heyer, in 1925, Marchiafava, in 1931, and others have reported similar observations. In a number of my cases of this type the gallbladder functioned normally with Graham's dye, but in other cases gallstones were present.

Martial, the Roman poet, wrote of the rising of a man's bile with anger and certainly the ancients must have observed a relation between bile and emotion or they would not have described an irascible man as choleric or full of bile. Among the Romans "choler" meant either anger or bile or jaundice, and even today, in several of the Latin languages one meaning of the word "cholera" is a violent attack of anger. In 1386 Chaucer wrote, in the Nun's Tale, "Certes this dreem . . . cometh of greet superfluytee of youre rede Colera."

Beaumont noted on one occasion, when Alexis St. Martin became angry, that much bile regurgitated into his stomach, which makes one wonder if regurgitation of bile into the mouth may not have had something to do with the idea of a man's bile rising when is angry. Anyone who has ever watched a Mexican woman vomiting bile after a "colera" or wild debauch of temper can see how such physiologic observations must have influenced the language.

What the mechanism of psychic jaundice is I do not know. Perhaps there is some dyskinesia with a failure of the sphincter of Oddi to relax

until great pressure has developed above it, or there may be a failure of the liver cells to remove bile from the blood.

STOPPAGE OF DIGESTIVE SECRETIONS BY EMOTION OR FATIGUE

Stoppage of Salivary Secretion. Just as secretion can be induced by pleasurable emotions, so also it can be stopped by unpleasant or painful ones. Cannon has written of the ancient ordeal used in India to pick a thief out of a group of suspected persons. Each is given a bowl of rice to eat, and the thief's mouth is so dry that he is the last man to finish.

The Psychic Production of a Bad Breath. Drying of the mouth may well be responsible for the fecal type of breath some persons get whenever they become nervous, excited, anxious or frightened. Martial spoke of the foul breath of prisoners about to be executed in the arena, and one can note the same odor on approaching a lawyer who has just been wrangling in court or a woman who has been watching her husband die. It plagues some women when they are sexually excited, and I once had a woman make the air of my consulting room foul with her breath when she was terribly anxious as to what the verdict of her examination would be. Another woman, who usually has a sweet breath, gets a foul one whenever she is made anxious by being driven in a car along a mountain grade which for several miles skirts a precipice.

Stoppage of Gastric Secretion. Bickel and Sasaki found that dogs that became much excited while barking at a cat or that were worried over the presence of a stranger in the room did not secrete gastric juice. Similarly with men and women, it has been shown repeatedly that unpleasant emotions such as fear, anger, annoyance, anxiety or disgust will inhibit gastric secretion. Cannon knew a woman who, at the first examination, had no acid in her gastric juice but on subsequent tests was found to have plenty. It was then learned that on the night preceding the making of the first analysis she had been badly upset by the antics of her drunken husband.

While studying gastric secretion every day for two months in a group of volunteers I ran onto some interesting psychic effects. In the case of a young man whose free acidity usually varied around 35 units, the first test of juice, withdrawn when he was apprehensive about the passage of the tube, showed only 7 units. A young woman who usually had about 40 units of acid had only 20 the day she was upset and depressed over receiving a rejection slip from a publisher. For several days after this her gastric acidity swung up and down wildly.

Beaumont observed that when Alexis St. Martin was angry or depressed, the villous coat of his stomach became sometimes red and dry, at other times pale and moist, and it lost its smooth and healthy appearance. The secretion became vitiated, greatly diminished or entirely suppressed.

Many years ago, as a boy helping my father in his practice, I was struck with the way in which fright and pain can stop digestion in the stomach. Early one morning a girl fell out of a mango tree and broke her arm. It was a long drive in a buggy to the city; so it was near noon when the parents brought the child to the office. With the first few whiffs of anesthetic she vomited, and there were the pieces of fruit, eaten hours before, so untouched by digestion that the marks of the child's teeth were clearly chiseled on the surfaces.

Many persons do not digest food when it is eaten under psychic strain, as at a banquet, a political meeting, or in a home overshadowed by illness or death. A woman who always has a perfect digestion was badly frightened one sleety morning about 11:30 when the car in which she was riding went out of control on an icy pavement and almost collided with an on-coming truck. Shortly afterward she ate some food which evidently was not digested because it caused distress all afternoon and finally came away in diarrheic movements.

Mantelli reported that in a man with a gastric fistula gastric secretion was inhibited not only by psychic strain but also by physical fatigue. For an hour or two after any strenuous muscular exertion little if any psychic juice could be obtained, and only after a rest of two hours did the stomach respond normally to the presence of food. Similar observations were made by Cohnheim and his associates, who studied the acidity of their own gastric juice the morning after a climb in the Alps. Then the secretion of one man was normal; of two, subacid, and of one, almost anacid.

These observations interest me because on trips into the mountains I have noticed that the man who comes late into camp after an exhausting climb and sits right down to a meal is likely to suffer for several days afterward with abdominal pain, flatulence and perhaps diarrhea. Sometimes the food will appear later in the stools, decomposed, foul smelling and undigested, and the probable explanation is that fatigue dried up the digestive secretions.

In my youth I had such an experience when, one day, in response to an urgent message brought to me by a forest ranger, I walked some forty miles across the California Sierra. After reaching a railhead I was so

hungry that, without proper rest, I sat down and ate a large dinner. A few minutes later I was prostrated by severe nausea but could not vomit. On lying down, I fell asleep, and the next thing I knew it was morning. I was then seized with diarrhea and the food eaten the night before came away unchanged. For some weeks afterward the bowel was irritable and unable to handle food comfortably.

I have often remarked to fellow travelers in the mountains that we ought to be at least as careful of ourselves as we are of our pack animals. After a hard journey across the passes, the packers would never think of watering or feeding the stock until they had been tied up awhile. Failure to observe this precaution can cause serious injury to an animal.

Stoppage of Intestinal Secretion. That the flow of intestinal juice can be stopped by distressing emotions is indicated by the experience of Macewen with a young man who had a fistula into the cecum. One day when the patient received bad news, the colonic mucous membrane lost its luster and its usual coating of moisture. It was noticed also that the material coming down from the small bowel had become acid, and the man complained of feeling "bilious."

Stoppage of Pancreatic Secretion. In dogs a stoppage of pancreatic secretion under excitement was demonstrated by Oechsler in 1913. When the flow was well under way it could easily be stopped by the bringing into the room of a cat or a bitch in heat. Freudians will be pleased to learn that so long as libido was unsatisfied there was no flow but when it was satisfied the pancreas became active again.

Stoppage of Hepatic Secretion. Dobreff, in 1933, found that when a dog was excited over being shown a cat there was marked inhibition of biliary secretion in ten out of twenty-three experiments. In eight cases the secretion stopped entirely. Wittkower, in 1928, studied the flow of bile into the duodenum in human subjects under hypnosis and found that suggestions of annoyance stopped the flow. Wilder tells me that the sudden exacerbations of diabetes often seen in patients undergoing psychic strain are probably due to changes in hepatic function emotionally produced.

Stoppage of Intestinal Peristalsis. I remember a man who, on three occasions, when he ate a large dinner after a very tiring experience, had an attack of what looked like intestinal obstruction. Another man with similar acute symptoms was operated on four times but never was the expected obstruction found. His trouble was that he ate after having had a debauch of temper. On half a dozen occasions a woman was operated on for what looked like intestinal obstruction but nothing was ever

found. I then drew from her room-mate the information that each time the bowels had become paralyzed a good-for-nothing son had been caught passing bad checks and the mother had had to make great efforts to keep him out of jail.

In a case reported by Ruggles in 1928, a business man who had been suddenly faced with the problem of either sacrificing his principles or losing his job had an attack of what appeared to be intestinal obstruction and was nearly operated on. An opaque enema showed a tremendous spasm in the sigmoid segment of the colon. A similar spasm was demonstrated in the bowel of a woman physician who was going through a trying emotional crisis.

Gastric Spasm Due to Emotion. In the case of a woman who became angry while waiting in his office, Ruggles observed a contraction of the stomach to half of its normal size, and with this there came rapid and vigorous peristalsis. I can remember two similar cases in which, with the roentgenoscope, I saw five or six waves running over the stomach at one time. They were so deep that the contractions almost met in the midline of the viscus. One of the patients was a hysterical girl whose mother was dying at the time and the other was a man in whom abdominal cramps had developed after two weeks of lobbying day and night at a state legislature. As his fatigue and excitement wore off the gastric waves became normal again.

Every roentgenologist knows well the type of spasm of the pylorus which is seen in many apprehensive persons. This usually disappears as the roentgenologist talks to the patient so as to get his mind off his stomach.

EFFECTS OF EMOTION ON THE METABOLISM AND DEPOSITION OF FAT

Emotion often has profound effects on the metabolism and retention of fat in the body. Years ago I learned that no matter how much food I gave some women during a rest cure I could not fatten them if they were wrestling with the problems of an unhappy love affair. Actually, worry can take fat off a person at a fast rate. I remember a plump, somewhat psychopathic girl who, when sent to boarding school, quickly lost some 50 pounds. I found that she had become terribly homesick and much worried over the discovery that her mother and father had decided to separate. When she was allowed to return home and the parents told her they would stay together, she rapidly regained the weight.

A priest lost on one occasion 30 pounds and on another 40 pounds when

he became torn by doubts as to his fitness for his work. Most remarkable was the case of a woman who lost exactly 100 pounds in a few months after she found that the good-for-nothing husband whom she had long supported was being unfaithful to her. Her weight then dropped from 210 to 110 pounds. I couldn't find in her any sign of organic disease and later, when she decided to forgive the man and go on living with him, she rapidly became stout again.

EMOTION CAN AFFECT A DISEASED DIGESTIVE TRACT

The physician must never forget that although it may be obvious from the history that painful emotion ushered in the indigestion, pain, vomiting or loss of strength or weight complained of by a patient, it is still possible that the psychic upset served only to lower the threshold for discomforts and thus caused the person to become aware of some organic disease which for some time had been gnawing at his vitals.

Effects of Emotion on Patients with Hidden Cancer. To illustrate the point made in the preceding paragraph, I will tell of a middle-aged, sad-looking and neurotic refugee physician who came in to say that a few days before, on being terribly upset by hearing from Poland that his mother and sister had been subjected to indignities, he had had trouble in swallowing. Although goodness knows he had ample reason to get a nervous type of dysphagia, what he really had was a carcinoma of the cardia which must have been growing silently for some time!

In 1932, an apparently healthy woman, a real estate operator sadly in need of a few commissions, thought that after weeks of difficult negotiations she had sold a large hotel and was going to get herself out of debt. But the buyer changed his mind, and what with disappointment, fatigue and discouragement, she went into what looked like a severe mucous colic. To my surprise, examination showed an inoperable carcinoma of the colon.

I could go on telling of many cases of this type, all showing that nervous strain or a psychic shock can so lower the bodily resistance and perhaps the threshold for pain that symptoms based on some serious or fatal disease will suddenly appear. This sort of thing naturally leads to the making of some distressing mistakes in diagnosis.

Effects of Emotion on Persons with Gallstones. I remember a choleric old man who, with the help of a shotgun, repeatedly chased away the highway surveyors who were trying to run a line across his farm. Every time he worked himself into a rage over the injustice which he felt was being done him, he had a biliary colic. Theoretically, he should have had

only a neurosis but actually he had gallstones and, as in many such cases, colics came only with a nervous storm and perhaps violent contractions of the muscular sheets lining the biliary tract. According to Mohr, Alkan, and others, one in three of the colics of patients with gallstones follows a debauch of temper. This does not surprise me because, as I have already remarked in this chapter, I have seen a number of temperamental Latins with a normally functioning gallbladder who had a colic and got jaundiced whenever they got angry enough.

Effects of Emotion on Persons with Peptic Ulcer. One of the best examples of the way in which emotion can act unfavorably on a diseased digestive tract is to be found in the field of peptic ulcer. There the influence of emotion on the production of symptoms is so marked that some patients, when told that they have an ulcer, find this hard to believe. As an intelligent broker with an ulcer once said to me, "My troubles must all be psychic in origin because my first attack came twenty-five years ago when my girl refused to marry me; the second came later when she changed her mind and I had the excitement of a big wedding; the third came when, in the crash of 1907, I got caught with all my money tied up in a copper mine; the fourth came in 1918 with the strain of my participation in the Argonne drive; and the fifth came in 1929 when I lost all my savings."

Many years ago a patient with ulcer taught me the tremendous importance of emotion in the production of hemorrhage. The man was an inventor who, after years of poverty and hard work, finally induced a big company to try out his machine. At first it worked; it promised to save millions of dollars which had previously been wasted; royalties began to flow in, and my patient saw wealth and comfort within his grasp. Then, with a change in the physical properties of some of the raw product that was being refined, the machine clogged and the company ordered it thrown out. The man immediately had a big hemorrhage, but from his bed he directed the changes to be made in the machine, and soon the difficulty was overcome. Again for a time money flowed in, again the machine failed, and again it was remodeled. This happened six times in three years and on each occasion the man suffered a hemorrhage.

It seems to me that in such cases emotion must upset the balance which normally exists between the acid and alkaline secretions that meet in the duodenum, but just how this imbalance is produced no one knows. It is known that in patients with duodenal ulcer the acidity of the duodenal contents is often dangerously high. Because in dogs a chronic postpyloric

ulcer will practically always form when the alkaline pancreatic secretion is shunted out of the duodenum, one must assume that what has happened in man when a duodenal ulcer has formed or has deepened under the influence of psychic strain is that emotion has dried up the alkaline secretion, while it either has left the acid one unchanged or else has made it stronger.

Actually, there is some evidence to indicate that emotion can dry up the digestive secretions that pour into the duodenum, and there is abundant evidence to show that it allows the stomach to go on secreting a highly acid juice. In this connection Frederick Hoelzel made an interesting observation. After a long period during which he was in the habit of aspirating his stomach every morning, there came a time when for a few weeks, he went in daily fear of his life because of having had to give testimony against some Chicago gangsters who had broken into his home. During this time the acidity of his fasting gastric juice was almost double what it had been averaging before!

I believe that in those nervous persons who are predisposed by heredity to the formation of ulcers the most important factor in producing the lesions is the tendency of the stomach to go on secreting strong acid in the late evening, long after it should have quieted down and become almost dry. The reason for this is probably that in these tense persons sleep does not bring quiet to all parts of the brain. Many a patient of this type has remarked to me that he was sure that during the night, part of his brain remained hard at work because often in the morning he woke with his day's work well planned, just as if it were written out for him.

Doubtless because of this sort of thing many patients with ulcer are restless sleepers, so restless, in fact, that the wife has to sleep in a separate bed or even in a separate room. Because of the continued activity of the brain in the first part of the night, secretory stimuli probably keep running down the vagus nerves, and as a result, twelve o'clock finds the stomach still full of strongly acid juice which, in the absence of food, is likely to injure the mucosa.

If only we professional and business men of today could live the easy-going and often rather lazy life of the savage, and if, like him, we would go to sleep as soon as darkness shuts down, we probably would never have a disturbance in the pH of the duodenum and never an ulcer. As Ivy once said, he had little hope of ever producing the human type of ulcer in dogs until he could get them to worrying about crashes in the stock market.

That the disturbance which produces peptic ulcer comes often from the brain is indicated also by the fact that ulcers are found at necropsies in a

high percentage of patients who have died of intracranial disease. Ulcers are found also in a high percentage of persons with exophthalmic goiter, a disease which injures the nervous system.

Effects of Emotion on a Diseased Bowel. Another organic disease of the digestive tract that is often affected adversely by emotion is chronic ulcerative colitis. I remember a young man with a well arrested case of this infectious disease who suffered a relapse after taking the public examination for his Ph.D. degree. Another man with an apparently healed regional enteritis had a bad flare-up when he was much cast down over the loss of some investments. Another man, a senator with a well arrested sprue, went rapidly downhill under the strain of campaigning to retain his seat, and died a week after the election. What happens perhaps in these cases is that a psychically induced liquefaction of the feces favors the development of pathogenic bacteria. Similarly, in the skin, emotionally produced sweating can favor the growth of trichophytes.

SERIOUS BODILY INJURY WORKED BY STRONG EMOTION

Especially now that we know that under the influence of emotion powerful chemical substances are poured out into the tissues, it is not hard to see how continued emotion might bring about permanent damage to the body. Another way in which injury might be worked is through vaso-spasm which might keep blood out of a tissue long enough so that permanent damage could result.

Good examples of organic disease brought on by nervous shock or strain are to be found in those cases in which exophthalmic goiter or diabetes appears shortly after a person has passed through some trying experience. Striking also are those cases in which a psychic shock causes the hair to whiten or to fall out completely or the skin to become covered with large urticarial lesions.

Another way in which emotion can injure the body is through sensitizing it to allergens. Thus, a surgeon who ordinarily, when feeling well, has no trouble scrubbing up, gets giant wheals all over his arms when his skin has been sensitized by the fatigue of a sleepless night. I have been surprised many times to see severe allergic manifestations disappear when a woman solved a problem in her love life.

Death Due to Emotion. Even more impressive are those cases in which a bereaved person or even a dog dies apparently of a "broken heart." Every surgeon knows of persons who died, apparently of fright, as they were being prepared on the table for an operation. At necropsy in such

cases, no cause for the death could be found. I remember seeing a rat, caught in a cage type of trap, drop dead when barked at by a terrier, and recently I read of a road runner, a desert bird, which dropped dead when it came face to face with an owl.

I remember a man, previously perfectly healthy, who in his late fifties became enraged over a lawsuit brought against him by his sister. He could think and talk of nothing else. Immediately, his breath became foul and it stayed that way; his appetite left him, his digestion became bad, sleep failed and his weight dropped off rapidly. Soon his heart and kidneys began to fail and after some months he was dead. It seemed obvious that he died from the bodily injuries wrought by painful emotion.

Everyone knows how a person can age rapidly under the influence of strain or sorrow or tragedy, and many know that in the case of some chronic infectious disease such as tuberculosis, the coming of worry, unhappiness or a loss of morale can quickly turn the tide against the patient and bring about his death.

Among primitive peoples it is a common practice to kill a man with witchcraft. All that is needed is that the victim be notified that he is being "prayed to death," whereupon he sits down on a mat, refuses meat and drink and gets the thing over with as soon as possible. Years ago, while practicing medicine among Polynesians, my father saw several such instances in which a man was prayed to death. Those who are interested can find much on the subject in Seabrook's book on witchcraft (Harcourt, Brace, 1940) and in an article by W. B. Cannon in the April-June, 1942, number of the *American Anthropologist*.

Dr. Dunbar's big book is full of information as to the ways in which emotion can injure permanently the several tissues of the body. Certainly many a person overwhelmed by painful emotion feels poisoned, and he probably *is* poisoned. It is said that a nursing infant can become poisoned by ingesting its mother's milk after she has lost her temper. Hurst has published a remarkable photograph of a soldier whose hair stood on end from fright and then remained that way for months after his return to England! Some of the poisons which injure emotionally shocked persons probably come out of the thyroid and the suprarenal glands. As is well known, hyperthyroidism causes diarrhea and Addison's disease causes vomiting.

SOME POSSIBLY HELPFUL EFFECTS OF EMOTION

Everyone knows that going to the dentist can stop a toothache. Similarly, many pains and discomforts disappear when the patient becomes sufficiently interested in doing some task or in meeting some exciting situation. Soldiers shot during a charge may say afterward that they did not feel much. I can remember that as a youth playing basketball I once had a big toenail kicked off. The accident should have been painful but I knew nothing about it until someone called my attention to blood on my shoe. In many cases happiness, the return of hope, or an interesting job can do more good than any amount of medicine.

Chapter II

THE MAKING OF THE DIAGNOSIS FROM A GOOD HISTORY

"To ask well is to know much."—Arabic proverb.

"Thou shalt never get such a secret from me but by a parable."—SHAKESPEARE, Two Gentlemen of Verona, V, ii.

"The patient is the doctor's best textbook."—BAGLIVI.

"If you bring much you will get much." —East Indian proverb.

IN SPITE OF ALL THE GREAT ADVANCES THAT HAVE BEEN MADE IN LABORATORY and roentgenologic methods of searching for and identifying disease, a good history, purposefully taken and skillfully interpreted, is still in many cases the most important single factor in making a diagnosis. Actually, as I shall show again and again in this book, the information that can be obtained from a patient as to the characteristics and life history of his disease is so important and enlightening that we physicians will usually do well to trust it when it points toward one diagnosis and the laboratory or roentgenologic reports point to another. Thus, if the history is only that of migraine and the roentgenologist reports stones in the gallbladder or duodenal stasis, the physician had better warn the patient that cholecystectomy or duodenojejunostomy will not have any effect on the illness.

I never realize how much I depend for my diagnoses on a good history until I try to find out what is the matter with some ignorant foreigner whose vague story has to be relayed to me by an interpreter. Usually, then, I give up in despair and ask the roentgenologist to help me out.

MOST HISTORIES ARE TOO SHORT

Partly because so many physicians today have gotten into the habit of looking to the laboratory for their diagnoses, and partly because so many are overworked and short of time, the histories now being taken in many offices are much too brief for purposes of diagnosis or treatment. Many are actually misleading. Often I am saddened to see how easily the good

physician at home could have made the correct diagnosis if he had only thought to ask the patient one more question. For instance, let us say that because a man with a spondylitis complained of a pain in his "stomach" and the roentgenologist saw some deformity of the duodenal cap, the busy physician accepted the diagnosis of ulcer and sent the man into the hospital for treatment. Now, if the doctor had only asked the man to point to his "stomach" and had seen him put his hand over his pubes, or if he had asked him if he ever had any indigestion and had heard him answer, "Why, no, I have a cast-iron stomach," he would have realized that something was wrong with the diagnosis, and that the man's pain could hardly be due to a lesion in the duodenum.

THE NEED FOR AVOIDING ANY APPEARANCE OF HURRY

I might remark first that if the physician expects to get good histories he must not hurry and he must not seem hurried. One of the finest faculties the doctor can cultivate is that of making his patients feel, as they sit in his consulting room, that for the time he belongs wholly to them; he hasn't a thought except for their problem; he is all attention; there is no hurry in him, and he is not in the least concerned over the fact that a dozen people are waiting outside. Patients love a doctor who makes them feel in this way that he is interested in them as human beings and is anxious to hear out their story of illness. They are more likely also to tell a story of fear or sorrow or shame to him than to a man who is diffident, impersonal, and uninterested.

As I pointed out elsewhere in this book, in those many cases in which a long story of mental suffering, psychopathic thinking, or maladjustment to life must be drawn out and the patient must be lifted up and gripped to the physician, at least a half hour should be set aside for the all-important first interview. I know many of my readers will say that no busy physician can give any one patient a half hour out of his day, but my answer to this is that if he intends to solve difficult diagnostic problems, he *must* give much time to each person. He must talk with each patient until he has secured all the important facts about his or her disease, and then he must take time to think about them. In order to do this type of work he will have to put a limit to the number of patients he will see in a day. If he allows his practice to run him and accepts so many patients that he can give each one only a few minutes of time, then he must face the fact that every day he is going to make serious mistakes. No matter how brilliant he may become in the making of snap diagnoses, a lot of them

will have to be wrong, if only because they will be based on inadequate or wholly misleading information. It is most unfortunate that this is true; it is unfortunate that few persons in any one day can get the benefit of an able diagnostician's advice, and it is unfortunate that few persons can pay him adequately for his time and experience.

THE NEED FOR GOING INTO DETAILS

The longer I practice medicine and the longer I watch good clinicians at work trying to solve difficult diagnostic problems, the more impressed I am with the fact that when a man is puzzled and stumped, the best thing he can do is to sit down again with the patient and go over the *details* of the story to see if they were obtained correctly the first time, or if errors or misunderstandings crept in here and there, or if highly significant information was not secured.

In difficult cases the history or parts of it may have to be taken over again several times before the story can be gotten correct in all its essential details. Time and again as I have sat in at a consultation and have listened to an able specialist retaking the essential parts of a history and cross-questioning the patient, I have been impressed, first, with the care with which he made certain of many details, and, second, with the fact that the information he brought out was absolutely essential to the making of the diagnosis. Thus, I remember how once in my younger days when I made a diagnosis of angina pectoris and called a cardiologist in consultation, he asked the man to show by pointing just where the pain came and radiated. He asked repeatedly if the pain was *always* related to exercise, anger, eating, or walking after dinner or against a cold wind. Did it always compel the man to stop walking? How long did it usually last? Finally, when he brought out the fact that it was more an ache than a pain and that often it lasted for hours, and often came on while the patient was lying in bed, even I could see that the distress was not anginal in nature.

But I still wondered about the man's complaint of dyspnea. Again the specialist asked a few questions which showed that what the man had was not dyspnea at all but typical nervous "air hunger." Finally, when I said, "But how about the abnormalities in the electrocardiogram?" the doctor brought out the fact that these were due to the man's having taken digitalis! A few more questions then showed that the ache was due to an arthritic spine!

I remember another case in which I was inclined to agree with the home

physician's diagnosis of coronary disease when a man of fifty-five told me that he couldn't walk far without having to stop because of distress in his "heart." After a little rest he could go on again. It sounded like the typical story of angina, but when the cardiologist arrived on the scene he soon brought out the fact that the distress came only when the man was *on his way to* a worrisome business appointment; *on the way home* he could walk as fast as he liked! Interesting also was the fact that when he stopped and rested for a minute, he did this *not because he had to but because he had been advised to*. Sometimes when in a hurry he went on walking and the distress cleared up. More questioning showed that he had a splendid cardiac reserve. Obviously he did not have heart disease.

Highly instructive was the case of a woman who gave the assistant who first took her history the idea that she was coughing up a cupful of sputum every day. When the roentgenologist reported a shadow in the right lung suggesting the presence of bronchiectasis, the diagnosis appeared to have been made, but when a lung consultant came in, he promptly brought out the fact that the woman hadn't said that she *coughed* up the material; she never coughed. What she did was to clear her throat and then a glairy white fluid welled into her mouth. She didn't know where it came from. A radiopaque oil injection then showed that she had no bronchiectasis, and when a barium meal was given, it was found that she had a diaphragmatic hernia with a considerable degree of obstruction at the cardia. The material that was running back into her pharynx was evidently coming from a dilated esophagus.

It is more of this sort of insistence on getting an exact history that we need in America today, in these days when so many of us, busy and hurried and tired out, are tempted to depend on laboratory men, roentgenologists, and specialists for our diagnoses. No one could sit back of me in my office for more than a week, listening to the experiences of the patients who come in, without becoming upset and distressed at seeing how many mistakes are being made today because so many overworked men are trying to "cut corners" and save time by getting their diagnoses made for them by others.

Often a positive laboratory finding is correct enough, *but it does not account for the symptoms*. The doctor would have sensed this fact if he had had time to take a good history, and then he would have gone on to search for the real trouble. For instance, twice recently when the roentgenologist reported gallstones, I did not feel satisfied that the diagnosis had been made because the woman's story indicated the presence of a

mild intestinal obstruction. Fortunately, in each instance I asked the surgeon to explore the abdomen carefully; when he did, he found in one case an internal hernia and in the other a small carcinoma of the colon.

In much the same way as the expert cardiologist makes many a diagnosis from a good history and not from the electrocardiograms, so also, day after day, the expert gastro-enterologist must keep basing many of his diagnoses mainly or solely on the fine points of a carefully taken history. To do this successfully, he must know well the diseases he deals with. He must know them in their more bizarre forms, and he must know the diagnostic value of the smallest detail.

I remember once on my first visit to the Mayo Clinic being greatly impressed when, in the case of a middle-aged man with a short history of epigastric pain, Dr. McVicar disregarded the roentgenologist's report of duodenal ulcer and sent the man in to have his stomach explored for cancer. When a cancer was found, I asked McVicar what his mental processes had been, and he said what had put him on his guard was the fact that the man had had pain before breakfast, and this practically never occurs with duodenal ulcer!

Obviously, only a specialist who spends his life studying many patients with a certain few diseases is likely ever to note and remember such fine points as that patients with benign ulcer seldom have pain before breakfast. And unfortunately, when he writes a book the consultant usually fails to mention such points from his personal experience, and hence his knowledge dies with him. In this chapter I hope, as I go along, to put in as many of these points as I can think of. They shall be my legacy to my younger confrères who are starting out now in the practice of gastro-enterology.

THE NEED FOR CROSS-QUESTIONING THE PATIENT

One of the most instructive and impressive cases I ever had, and one that hammered home to me the fact that I must constantly be rechecking the histories taken for me by my assistants, was that of a stout woman of thirty-seven whose story, as it appeared in her long record, seemed to be perfectly clear-cut and pathognomonic. What the record told me was that four years before, after suffering several "gallstone colics," she had been operated on, and a gallbladder full of stones had been removed. Following this she had gone on having the same old "colics" every two or three weeks. With a few of the spells, "she had had a chill, some fever, and a little jaundice."

Because that afternoon I was in a rush, trying to get away on a trip, and because it seemed so obvious that the woman must have stones in her common duct, I was about to ask a surgeon to take her over when I said to myself, "No, I am breaking my rule; I really haven't studied this history in detail as I like to do, and if I were to cross-examine her, the story, now so typical of a common duct stone, might not stand up well." So I sat down and asked her to describe in detail a number of her attacks: when they came, what she had been doing, how they started, how bad they were, was there pain and how did it end, did she need morphine, and was the abdomen sore afterwards? Then, to my astonishment, I found that she had never had a colic even before the operation; *she had never had a pain in her abdomen*; what she had had were spells of vomiting lasting two days. In between these spells she was perfectly well.

What she described to me were attacks of migraine, typical except for the fact that the headache was so mild that she had not thought of mentioning it. So far as I could learn, the gallstones had never given her any distress, and so, naturally, their removal had done her no good! More questioning showed that there had been only one chill, and that had evidently been a nervous one following an argument with her husband, and the story of "fever" and "jaundice" did not stand up under cross-questioning. Next I learned that morphine did not stop her attacks but gynergen (ergotamine tartrate) did, and that clinched the diagnosis.

How grateful I was, then, that I had not depended on the histories taken by young assistants, and had not sent the woman to the hospital for a futile, and, in view of a previous phlebitis, a dangerous operation. What had come so close to leading me astray was the careless assumption of an assistant that any violent digestive upset in a woman with gallstones could be put down as a "colic." In most cases this would have been a good labor-saving device but in this particular one it almost led to disaster. I cannot greatly blame the assistants for doing as they did, because after thirty-seven years of history-taking I find that I, too, must fight every day against the tendency to put down in a hurry broad statements that have not been clarified or made definite by careful questioning as to details.

Not infrequently, I read in a history that the patient's gallbladder was drained; nothing more. Now isn't it strange that the young physician who made that record was not curious enough to go on and find out if the drainage was carried out through an operative wound or through a duodenal tube? Similarly, almost every day I read in a history some such statement as, "In January, 1941, the patient had tarry stools." I inquire and

find that at the time the man was not weakened; he kept at work, and he was taking some big white powders for a supposed ulcer!

As I have said, when one is faced with a difficult diagnostic problem, the best way to go about solving it is to take the history all over again. If this does not help, I usually ask a colleague to see if he can clarify the story or if he can draw out some important information which I failed to get. Often I find new clues and lines of investigation opening up as reports come in from the laboratories. For instance, if pus or red blood cells are found in a man's urine, I will go into the urologic history in more detail than I did on the first day, or if an eosinophilia is found, I will inquire as to manifestations of allergy, or I will ask about travel in tropical lands. I like to see the patient every day or so as he goes through his tests, not only because I can then direct the examination, but because I can get better acquainted with him and can keep getting more and more details about the history. Always at the final interview I like to go back over the history, trying to pick out the few important points from the many inconsequential ones.

Occasionally, when I learn of a diagnostic mistake I made some time before, I send for the patient's record and go back over it to see if I can find there the clues which should have set me on the trail of the correct diagnosis. Often they were there, but so overlain by unimportant information that I failed to see their significance. To show what can easily happen, one day I was about to send home with a diagnosis of a psychoneurosis a man whose problem for six weeks or more had been stumping me and a number of my colleagues. The patient was a lovable Irishman who admitted freely that he was so neurotic and at times psychopathic that his pain might well be due to his stormy emotionalism. By the time he got back from a series of investigations in the hospital, his record was a quarter of an inch thick. Fortunately, as I reviewed this long story, it suddenly seemed to me that three statements detached themselves from the mass of detail and stood out as of sole importance. If I looked at them alone and not at all the red herrings across the trail, the diagnosis was plain. The three statements were (1) that years before, the man had had spells of hunger pain; (2) that one day he was doubled up with an epigastric pain so severe that he had to have morphine; and (3) that after that he had spells of pain in the upper abdomen relieved only occasionally by the taking of food and alkalis. The logical explanation was that a duodenal ulcer had penetrated into the pancreas, and when, next day, I had a

surgeon look into the abdomen, this was just what he found. After operation the man lost his pain, but of course not his tendency to neurosis.

A DETAILED HISTORY IS NECESSARY NOT ONLY FOR DIAGNOSIS BUT
ALSO FOR TREATMENT

Often an intern's skimpy history is sufficient for the making of a diagnosis but woefully inadequate to help with the problems of treatment. Thus, the intern may be right in saying that a woman has migraine, but how am I to help her until I find out what sort of a psychic storm is producing three attacks a week? I may have to spend an hour drawing out the long story of perhaps overwork, strain, sorrow, unhappiness, marital infelicity, or psychopathic thinking which have worn her down, and then I must study her problems to see if there is any way of escape for her. I must also find out what treatments have been tried and found wanting.

Similarly when, after a few minutes, I have decided that a woman's indigestion is functional in type, I usually have to go on questioning her for another hour to find out what type of functional trouble it is, and what can be done to relieve it. By giving a bottle of phenobarbital tablets one may perhaps help the patient whose indigestion is due to jitteriness and insomnia, but not the one whose distress is the result of a neglected constipation or an allergic sensitiveness to food.

THE NEED FOR QUESTIONING RELATIVES AND FRIENDS

Often the most important part of a history can be obtained only from a relative or a business associate or from the family physician. Particularly in the case of patients who are going insane, or who have had a little stroke, or an attack of encephalitis, or who are getting the first symptoms of a brain tumor, the all-important story of a change in character with loss of efficiency, judgment, and drive is likely to be obtainable only from business associates. Members of the family and even the family physician may not mention the change, perhaps because they have failed to note its gradual coming, or because they feel that it is due purely to "cussedness" or foolishness, or to the abdominal discomforts complained of. They feel that if the stomach trouble could only be cured the patient would get over his silly fears, he would "snap out" of his moodiness, and he would go back to work.

I sometimes think how surprised the city consultant would be if he could follow one of his rather "difficult" patients home and, putting on a

cape of invisibility, watch for a time his or her behavior. He would often be astounded to find how uncontrolledly, unreasonably, and insanely the person behaves, and after seeing some of the tantrums he might feel like recommending committal to an asylum.

DANGERS IN ACCEPTING THE DIAGNOSIS THE PATIENT COMES WITH

As the reader may have gathered from the first part of this chapter, one of the worst features of our modern hurried and mechanized practice of medicine is that often a man's complaint of "stomach trouble," "heart trouble," "vomiting" or "diarrhea" is promptly and uncritically accepted, and he is treated for what he says he has. Thus, let us say that a man with a fibrositic ache around the left costal margin goes to a clinician and says he has pain in his "stomach." The assistant who takes the history is likely to write, "Patient has pain in his stomach," and then to send the man for a gastric analysis and a roentgenological study of his digestive tract. If, a few days later, when the man sees the chief for a few minutes, his reports say that he has a high acidity and an irritable duodenum, he is likely to get sent to the hospital for a Sippy treatment. But if instead, this same patient had said he had a pain in his "heart," he would have been sent for an electrocardiogram, and if this should have shown a few slurrings and notchings, he might have gone home with a prescription for digitalis and the injunction to go upstairs slowly. It is not pleasant to have to record such things, but unless we physicians keep remembering what can happen when we do not cross-question our patients, we are likely to go on making many mistakes.

THE BETTER THE DIAGNOSTICIAN, THE LONGER THE HISTORY

As I have just intimated, the trouble with most histories today is that they are too short. Not infrequently, incoming patients bring me a sheaf of letters from internists summarizing the results of examinations, and what upsets me is to see how many of these reports contain no mention of the history. Sometimes I wonder if the doctor bothered to take any, and actually as times goes on, I am seeing more and more reports to the home physician from city consultants in which the patient's symptoms were not even mentioned, let alone correlated with the laboratory findings. Often no opinion was given as to the diagnosis, and apparently the consultant felt that the home doctor, like the patient, was interested only in laboratory and roentgenologic work. Patients who have been the rounds seeing prominent internists have told me that actually some of these men did not

take any history or make any examination, but made the diagnosis purely from the sheaf of reports that come to their desk from assistants, laboratory workers, and specialists.

Where I work I am often impressed by the change that takes place in a young physician's histories when he becomes promoted from a fellowship to a first assistantship. As a Fellow he is not responsible for making diagnoses, but as a First Assistant he is, and then the quality of his work over several probationary years determines whether or not he is promoted to a position on the staff. Because of this, the day he becomes a First Assistant, his histories tend to triple in detail and diagnostic value. As a Fellow he may have been satisfied to put down useless statements such as that, "In 1935 the patient had an attack of ptomaine poisoning"; as a First Assistant he goes into detail as to what preceded the attack and what it was like. Were relatives or friends who ate the same food also poisoned? How long after the eating of the food did the trouble begin, and just what were the symptoms? Just where was the pain and how did it radiate?

The average intern seems to take a history because there is a space on the blank which must be filled in. He asks a number of questions apparently because he was taught to ask them in a certain order, and the answer given to any one question does not seem to excite in him any curiosity or any desire to ask another. The minute a Fellow becomes a First Assistant he begins to take a history as his chief does, with the one idea constantly in mind of making a diagnosis. Each symptom or episode described makes him think of the possible diseases that might have caused it, and the next few questions will be designed to strengthen or weaken each of the several possibilities. Every clue that turns up will be run down and followed out to the end.

OFTEN THE BEST DIAGNOSIS IS TO BE MADE FROM THE HISTORY AND A GLANCE AT THE PATIENT

Often a diagnosis can be made with a fair degree of certainty without any help from the laboratory. To illustrate: one day my assistant introduced me to a new patient and told me that for several months the man had been having pain in his "stomach." His home physician accepted a roentgenologist's report of duodenal ulcer and gave him a Sippy type of treatment. When this failed to help, a "stomach specialist" gave him another Sippy treatment in a hospital, again without relieving the pain.

I asked the man if he had ever had any indigestion, and he said, "No," he had always had a cast-iron stomach and he still had it. His pain was

not influenced by eating or defecation or the passing of gas. It did not look then as if it were arising in the digestive tract. Because, when the man rose to greet me, he got up the way a person does with a stiff and painful back, I immediately thought of spondylitis, but questioning soon showed that he had never had the lumbago, cricks, sciatica, or wry neck that usually go with spondylitis. Much against the diagnosis was the fact that walking about did not relieve the pain.

Then I asked the man to point to the exact site of the pain, and reaching back as nearly as he could to the ninth thoracic vertebra, he followed down the course of the left ninth thoracic nerve! Obviously he had a "root pain," and the next question was, Could he have a cord tumor? To test this possibility, I asked him what happened when he sneezed or coughed, and immediately he said, "Oh, doctor, I am scared to death to sneeze because it stabs me there like a knife," and again he pointed to the ninth thoracic vertebra. Evidently with a sneeze a wave of pressure ran along the spinal fluid and struck the lesion a blow. During the next few days the neurologists and roentgenologists confirmed my hunch; a neurosurgeon removed a small tumor, and the man was well.

I could go on to tell many such stories to show that, still, with all the wonderful new helps in diagnosis at our disposal, if we physicians would only keep our eyes open, if we would spend more time taking a history, if we would learn more of the meaning of symptoms, and if we would learn to recognize certain syndromes when we meet them, we could often tell what a patient's trouble is the minute we hear his story.

THE ADVANTAGES OF MAKING A DIAGNOSIS FROM THE HISTORY

Some of my readers may be saying now, "But why take time to make a diagnosis from the history when the roentgenologist, the laboratory man, or the specialist will make it for you later, anyway? Don't you see that in the case of the cord tumor, you had to send the patient to a roentgenologist and a neurologist before you could be sure enough of the diagnosis to turn the man over to a surgeon?" Yes, but if the two physicians who saw this man before I did had taken a better history or had noticed the way in which he got up out of a chair, they would not have wasted two months' time and much money on futile treatments for ulcer. Furthermore, if, after making a diagnosis of cord tumor, they had still wanted to have the man's stomach examined roentgenologically, *they would not have been so easily misled by the finding of an irritable duodenum.* They would have known that the man had no symptoms of ulcer, and this would have made them slow to accept the roentgenologist's diagnosis.

DANGER OF BEING LED ASTRAY BY A LABORATORY DIAGNOSIS

Actually, nowadays, with special workers trying so hard in every case to supply the practitioner with a diagnosis, as he expects them to do, there is an ever increasing need for his trying to make it himself. For instance, let us say that a woman who complains of "vomiting" returns from the roentgenologist with a report that she has a good-sized cholesterin stone floating around in a gallbladder that functions well with the dye; if the physician hasn't already taken a good history and made the correct diagnosis of nervous regurgitation, he is almost certain to accept the one handed him, and to order a futile cholecystectomy. However, if at the first interview he had brought out the fact that the woman never really vomited but was a typical regurgitator with never a colic or any gas or indigestion, he would have been so sure that he was dealing with a purely functional disease that he would have paid little attention to the roentgenologist's report, and would have advised against operation. I admit that later someone would probably remove the stone, but then when the woman was no better, she and her family would know who was the wiser physician and the one they would want to employ and trust for the rest of their days.

Similarly, when a real diagnostician has seen from the history that the troubles of the patient before him are due to a small cerebral thrombosis or a toxic goiter, he is not going to get excited when the laboratory assistant reports amebae in the stools. It may be well later to give a little emetine or carbarsone to get rid of the parasites, but the essential point is that it was known from the start that they were not producing the patient's illness.

As T. A. Ross has well said, *the diagnosis of a neurosis should never depend on the physician's not finding signs of organic disease, because too often he will find some!* He cannot depend on making a diagnosis by exclusion because along that road lie too many pitfalls.

One of the curses of American medicine today is the tendency of consulting roentgenologists to write reports covering one or two typewritten pages when they could just as well have written one line saying, "Normal stomach, duodenum, terminal ileum and colon, and a normally functioning gallbladder." Unfortunately, they feel, and doubtless rightly, that if they were to be so brief as that both the patient and the doctor who referred him would feel that the examination had been skimpy and superficial. But when the roentgenologist describes all sorts of unimportant details, such as great length or ptosis of the stomach, irritability of the duodenum, ptosis, spasticity and kinking of the colon, a suggestion of

adhesions here and there, and "slow emptying" of the gallbladder or the appendix, what happens is that the inexperienced physician is tempted to make a diagnosis which is either unimportant or definitely wrong, and as a result, many a patient is sent into the hospital for a futile operation.

TECHNIC OF TAKING A HISTORY

Because it is so hard to get many patients to tell their story in a sequent way, some physicians make notes and later dictate or write out the history. The trouble with this is that such rewriting takes time. Sometimes I make notes and later dictate to a secretary, or I have my secretary in the room taking down a history as I question the patient. I have also used a dictaphone. Best doubtless would be a dictograph in the consulting room and an experienced medical secretary making notes in another room. When I have to write a history longhand, I usually go back over the record and underline those statements which I believe are the important and significant ones. This helps me and saves me time when I come to the final interview and start summing things up.

I find I have to struggle to avoid the bad habit of asking questions in a negative way or in such a way as to suggest the answer. Thus, I try to avoid saying, "You have never vomited?" because it is safer and better to ask, "What are your symptoms?" or "Do you ever vomit?" One must remember that some persons are so highly suggestible that they can be influenced by the way in which a question is asked.

When the physician begins to have a larger practice than he can comfortably attend to, the question will arise, What part of his work can most safely be delegated to assistants? Should he give up taking the history, or making the physical examination? My impression is that in all difficult cases he cannot delegate the taking of the history unless he has an unusually capable assistant. Often also he cannot run chances by not examining the patient himself. Probably the best way is to have an assistant take a history and make a physical examination, and then, if doubt remains as to the diagnosis, the Chief can check up both on the history and on the physical examination.

WHAT IS THE PRINCIPAL OR MOST TROUBLESOME COMPLAINT?

The first thing I like to do in taking a history is to make sure of what the patient considers is his principal trouble. What bothers him most, or what does he want most to get rid of? This is particularly important when there are many complaints. In the case of some women I have to ask for

the principal complaint more than once during the course of the study because they will shift the emphasis from one symptom to another, or they will think of new ones when I do not get excited about the first one they talk about. Thus, if I do not show any alarm over a woman's sore colon and her mucous casts, she may suddenly remember an occasional migraine, and will decide that this is really what she wants cured. Or at the first interview her main concern may be a pain in the abdomen, and later she may say that the really distressing symptom is a toxic feeling in her head. Then, of course, I must sit down and take the history all over again. To treat a patient on the basis of an inadequate or misleading history is only to waste time. Of course, in most cases this changing from one complaint to another shows that no one of them is very troublesome, or it suggests that the patient has some other concealed reason for consulting the physician.

One reason why the city consultant must ask which one out of many complaints needs most to be cured is that, in the time available to him, he cannot hope to grapple with all of the patient's miseries or to cure all of them. Under the circumstances, the best thing he can do is to concentrate his attention and his therapeutic efforts on one or two.

The Physician Must Make Sure of the Meaning of Words. As I have already pointed out, it is most important that the physician make sure that he understands what the patient means by such words as stomach, vomiting, diarrhea, gas, and pain. To many persons "stomach" is synonymous with abdomen, and by "pain" may be meant a sensation of burning, quivering, pressure, throbbing, tension, or aching. It is highly important to distinguish these strange sensations from pain because pain is often a sign of organic disease, while the other strange sensations are commonly indicative of a neurosis, and some, like quivering, always mean a neurosis. Epigastric "burning" in the Jew almost always means a functional trouble; probably a paresthesia in the skin.

"Vomiting" sometimes turns out to be regurgitation, a very different symptom with a different mechanism and significance (see Chapter XXVII). "Diarrhea" may mean twenty liquid movements a day or one large mushy movement on an occasional day, or a dozen movements a day consisting of one or two hard fecal balls, or the occasional passage of a little mucus and an ounce of slimy fluid. "Gas" or "belching" commonly turns out to be nervous air swallowing; "chronic fever" usually turns out to be a normal afternoon temperature of 99.2° F., and a "tarry stool" turns out to have been one blackened by bismuth.

As can easily be seen, a physician can have but little hope of making a correct diagnosis if he bases his reasoning on a wrong idea of the symptoms, or of where pain appears in relation to the surface of the body. A good example of the tragedies that can result was shown me once by a Mexican woman, living in this country, who told of having submitted to two fruitless laparotomies and a year of fruitless dietetic and medical treatment. What had happened was that, with her defective command of English, she had never made clear to her physicians that by "*pain in her stomach*" she meant a hyperesthesia of the skin of the right groin! The fact that this came following a fall over the edge of the bathtub which nearly broke her back in two made it the more probable that the lesion was in a couple of pinched spinal nerves.

How Long Has the Trouble Been Present? It is helpful often to learn that a pain or distress has been present for years because, obviously then, it is not likely to be due to a cancer or other serious disease. It is helpful to remember that tumors growing in the small bowel or the narrow left half of the colon usually produce serious obstruction within six months after they begin to cause symptoms.

The physician must always be concerned over a short history of any kind in a person past middle age who has previously enjoyed good health. It always suggests the coming of some serious illness and, naturally then, it calls for a most thorough examination. I have seen many cases, however, in which a rapid decline was due purely to worry or a "broken heart."

The age at onset of a disease will help the physician in making the diagnosis. Youth will favor such diagnoses as appendicitis, duodenal ulcer, constitutional inadequacy, allergy, irritable bowel syndrome, or dementia praecox, while a more advanced age will speak for cancer, gallstones, cerebral arterio-sclerosis, pernicious anemia, or myocardial injury. When a previously healthy oldster falls ill it is unwise to diagnose mucous colitis, food allergy, chronic appendicitis, or "nerves," because the laws of chance are much more in favor of one of the more serious diseases which afflict those who are getting old.

Advisability of Getting the Story of the Beginnings of the Disease. Whenever I am puzzled over a difficult diagnostic problem, I like to go back and learn just how the trouble began. So often I find that at the beginning of an illness the symptoms were characteristic of some disease and the exciting causes were discernible. Later, as complications developed and the disease became chronic, the picture became confused and atypical.

For instance, let us say that a woman has a constant headache. I may suspect that it is due to fatigue and nervousness, but I cannot prove it because the woman says, "No, I went on a vacation for a month and I was no better." But when I go back and get the story of the time, perhaps during college days, when the headache first appeared, she will say that then the trouble followed overwork and examinations and could be relieved by a few days of rest. Often when puzzled over a strange story of abdominal pain or vomiting in a man of fifty I can make the diagnosis of ulcer simply by going back to the beginning and finding that in his twenties he had typical attacks of hunger pain.

Often much can be learned, especially when studying patients with a puzzling story, by finding out if the symptoms came gradually or suddenly, and if they came suddenly, by getting a detailed account of the first attack. Did it follow an acute infection, an accident, an operation, or a mental shock?

It may help much to learn that the trouble followed a long period of overwork or psychic strain. Perhaps the symptoms were ushered in by some tragedy, unhappiness, disappointment, financial worry, loss of a job, the breaking of an engagement to marry, the discovery of unfaithfulness in a spouse, a divorce, or the death of a loved one. Or there may have been a "heart attack," or an attack of diarrhea, or a fright on waking in the night. Serious trouble that comes to an older person suddenly at a certain minute of a certain day always makes me think of a thrombosis in some artery in either the nervous system or the heart.

In some cases the busy consultant in a big city who saw the patient for only a few minutes would never have made the alarming diagnosis he made if he had only been with the patient during the day on which the first symptoms came. To illustrate: After being up all night with abdominal pain, a man was rushed to a hospital to be operated on for an "acute abdomen." All that saved him from needless surgery was the good sense of a consultant who took the trouble to ask him what he had been doing the day before. It then turned out that the man, a shy little fellow, had spent hours on the witness stand, being harried and browbeaten by a lawyer who was trying to discredit the pivotal testimony he had given in an important case. When court adjourned, the man jumped in his car and drove a hundred miles up into the mountains where his wife and children were vacationing. Arriving there, tense and weary, he sat down and ate a large meal. As one might have expected, this food seemed to stick somewhere in his bowel, and soon

he was in great pain. Fortunately, after getting this information, the surgeon put off operating, and after a good sleep the man was well.

An excitable and temperamental South American came into my office in a wheel chair with the diagnosis of coronary heart disease. On asking about the particulars of the first attack, I learned that the man was one of two neurotic brothers who were so devoted to their mother and to each other that they never married. One evening the brother suddenly died, and on hearing the news the mother dropped dead. My patient promptly became hysterical with grief and with the conviction that he too was dying with heart disease. Unfortunately for him the physician who was first called fell in with this idea, and next day diagnosed coronary disease on the basis of a few changes in an electrocardiogram. Since there was nothing in the history or in my findings to indicate heart disease, I started reassuring the man and soon had him out of his wheel chair and walking around again.

More cases illustrating the need for inquiring as to the events leading up to an attack of abdominal pain are given elsewhere in this book.

The Value of Asking About a Typical Day. Sometimes when a patient has told a rambling and puzzling story of indigestion it helps to get him to describe the sequence of events in a typical day. I like to ask him if he gets up feeling all right. Does he get distress after breakfast, and if so, how long after? How does the distress go away, or what has to be done to relieve it? Does it come again after luncheon or supper, or after he has gotten to sleep? Perhaps as the story is told in this way, the clinical picture of peptic ulcer will come out clearly.

The Previous History. It is highly important to find out if the patient ever was well. The person who had a cast-iron stomach until the age of sixty and then began to have distress after every meal is almost certain to have some organic trouble. In such cases it is evident that something serious must have gone wrong with the machinery, and the physician must immediately start hunting for it. The heart is failing, or a cancer has started to grow, or a gallstone is starting to move. One does not have to be so worried about the woman who says she hasn't had a really comfortable day since she was a girl. To be sure, she *can* have a cancer, but she is far more likely to have some functional disturbance which is never going to kill her.

A knowledge of the previous history is important also when the physician begins to estimate the prognosis and the chances of the patient's ever getting well. If the patient never had good health, never earned a good

living, or never was worth the powder to blow him up, he is not likely to be any more useful a citizen after an abdominal operation. On the other hand, if for fifty years the man was well, hard working, sensible, and uncomplaining, the chances are large that some organic cause can be found, and if this can be cleared up he will be well again. Many a time, because I reasoned along these lines I kept searching for organic disease until I found it.

Sometimes it is helpful to have a talk with the patient's mother. Thus, I recently saw a girl of nineteen who was brought to the clinic because her menstruation had stopped. Because of her evident psychopathy, some ptosis of the eyelids, a little nystagmus, and other nervous symptoms and signs, I feared that a lesion was growing in the brain, but a talk with the mother revealed the fact that the girl was well and bright for the first four years of her life, and then some infection hit her brain so hard that she had to learn to talk and walk all over again. Probably, then, the neurologic signs were due to the old meningo-encephalitis.

Occasionally when dealing with a patient with, let us say, a sciatica, I have for a while been alarmed over the finding of decided neurologic changes in the leg until I learned from the mother that as a child the patient had a mild attack of poliomyelitis affecting that extremity.

When I wonder if a patient is constitutionally inadequate I can sometimes make the diagnosis with certainty as soon as I get the long story of many illnesses, each associated with an abnormal amount of prostration, and each followed by a much-delayed convalescence.

When a patient comes with a puzzling illness which appears to be of nervous or hysterical origin, it often helps greatly to discover that he or she has had other curious upsets in the past. Some persons suffer from one bizarre illness after another; they seem to specialize in this sort of thing, and this, taken with the fact that the other troubles all cleared up without leaving much if any residue, will suggest that one is dealing with a nervous and possibly a hysterical trouble and one that will eventually clear up.

Help That Can Be Gotten from the Spouse or Relatives or Business Associates. Occasionally when puzzled in regard to a diagnosis, I have followed Dr. C. H. Mayo's custom and have turned to the spouse and asked what he or she thought the trouble was due to. For instance, a big husky farmer complained of nausea, epigastric pain, loss of weight, and occasional vomiting. When all examinations were negative, I couldn't imagine what the trouble was. On asking the wife, she said, "Why, I

know what's the matter. Every time he gets one of these spells it is because he has been chewing too much tobacco." The man admitted sheepishly that she was probably right. Another man, an inventor, suffered with attacks of severe heartburn and nocturnal epigastric pain suggesting ulcer. The syndrome was puzzling until the wife noted that the distress came following periods of intense concentration over his drafting board, during which times he smoked incessantly. On stopping smoking, he always got well.

I was puzzled once by the story of an excitable Jew who had had four exploratory laparotomies without relief from attacks of what looked like intestinal obstruction. Turning to his wife for help, I promptly learned that every attack had followed a tantrum over an "aggravation."

Often one must turn to a relative or business associate to find out the real cause of worry or of a nervous breakdown. Often, too, one can learn only from them that there has been a great change in character and behavior, perhaps with a loss of interest in life and work. Only from the family may one get evidence to show that the patient has had a slight stroke, or is getting symptoms of a brain tumor, or is going insane. I remember a minister who one day was brought in by his head deacon. The minister did not think he was ill, but the deacon was sure there was something terribly wrong because the man, formerly a stickler for perfection in the ritual, was making strange mistakes; he was coming to church late, and was doing a number of queer things which he never would have thought of doing before. Actually, the deacon was right, and the character changes which worried him so were due to a small brain tumor.

In some cases also one can get only from a member of the family the all-important story of some painful experience which the patient is ashamed of and which still rankles and causes pain. In this group of patients one finds the girl who elopes with a rotter and later has to come home deserted and pregnant, or the man who loses his job because of incompetence or dishonesty.

PAIN

Because the interpretation of pain is such a big subject, and because it didn't seem advisable to list here the questions that should be asked without telling why they should be asked and what certain answers would probably mean, I decided to put the material on pain all together in Chapter XI.

SYNDROME OF REVERSE PERISTALSIS

In most cases of abdominal distress, the first thing the gastro-enterologist should want to know is, Are the symptoms being produced by a lesion somewhere along the digestive tube? It is helpful then to ask if the patient has any of the symptoms that would suggest that waves are arising in some irritating or obstructing lesion of the bowel, and running backward toward the mouth. That such waves do run backward along the gut to produce discomforts of several kinds has been shown many times, and the syndrome of reverse peristalsis is discussed in my book, "An Introduction to Gastro-enterology."

I think of reverse peristalsis in the digestive tube whenever a patient complains of vomiting, regurgitation, heartburn, water brash, belching, nausea, a feeling of fullness after taking a few mouthfuls of food, a feeling as if waves were breaking back against the diaphragm, and perhaps a coated tongue with a bad taste in the mouth. Oftentimes a patient with perhaps a flat gradient of intestinal forces and no demonstrable pyloric obstruction or spasm will complain that food lies too long in the stomach so that at supper-time the luncheon is still being regurgitated and tasted. Usually, physicians look on this phenomenon as due to pylorospasm, but after years spent in roentgenoscoping stomachs, I doubt if the trouble is often due to such spasm. In the old days when surgeons were still performing gastro-enterostomy on such slowly emptying stomachs, they learned to their sorrow that they couldn't get them to empty any better by making a large opening into the jejunum.

The symptoms of reverse peristalsis are not pathognomonic of an irritating or obstructing lesion of the bowel because they can be produced by nervous influences affecting the polarity of the gut, and they appear often when the gradients, which I think underlie the polarity, are flattened because of constitutional inadequacy, asthenia, fatigue, or the toxins produced by some infection. Signs of reverse peristalsis appear also in certain persons after they have eaten a large meal or drunk much fluid. Then the site of origin of the gastric waves seems to shift to the pyloric end of the stomach, and as a result, the contractions run backward to the cardia.

The essential point is that if a patient has none of the symptoms of reverse peristalsis, and the distress is not influenced by eating or defecation or the passing of gas, he or she probably has a normal stomach and

bowel, and the cause for a pain or abdominal distress had better be looked for outside the digestive tract.

Regurgitation. As I point out elsewhere in this book, there is a big difference between regurgitation and vomiting, and a big difference in the significance of the two symptoms. Regurgitation means the bringing up of mouthfuls of food, without nausea or retching. This usually begins shortly after a meal or even during it, and in my experience is always a functional disturbance. I describe the syndrome in more detail elsewhere in this book.

Vomiting. Vomiting can, of course, be due not only to disease in the digestive tract but to disease in the heart, kidneys, gallbladder, brain, thyroid gland, ovaries, uterus, suprarenal glands, and perhaps any organ of the body. It can be due to the toxins of infectious disease, to malaria, and to the accumulation of any poison or any one of a number of drugs in the blood. It can be due to psychic impressions, an over-sensitive nervous system, menstruation, pregnancy, and pain anywhere.

First, one must be sure that it is vomiting and not regurgitation that the patient is talking about. It is often helpful to find out if the vomiting comes soon or late after a meal. Vomiting due to the stagnation of food in the stomach usually comes late after the stomach has struggled for hours to get rid of the excess fluid, but there are exceptions to this rule. Sometimes it is helpful to ask if vomiting is spontaneous or if the patient induces it by sticking a finger down the throat. In the latter case the trouble is more likely to be on a functional basis. In cases of apparent stagnation vomiting, one may want to know if the patient has ever seen food come up that was eaten the day before. This will suggest that the gastric stagnation is due to marked pyloric obstruction, but there are exceptions to the rule. Some nervous, migrainous, or badly constipated women without any pyloric obstruction or even symptoms of indigestion have told me of having regurgitated bits of food eaten a day or two before.

Often it helps to learn that the patient vomits only bile and rarely any food. This means that there is no obstruction at the pylorus, and that really the stomach is emptying rather faster than normal. The vomiting of bile means only that there is reverse peristalsis in the duodenum and perhaps the upper part of the jejunum.

Often I know that there is obstruction at the pylorus when I hear that the patient lies awake much of the night in pain, and with the feeling that fluid is sloshing around in the upper abdomen. Such a patient

loses weight because little food is getting down into the bowel, the only place whence it can be absorbed.

Spells of vomiting, lasting from one to three days, and not associated with abdominal pain, are often due to migraine. The headache may be so mild that the patient does not mention it. In these cases it is helpful to find that there is no indigestion between the spells. Often I feel much helped toward the diagnosis by learning that in childhood the patient used to come home with those spells of bilious vomiting which I feel sure are often equivalents of migraine. I feel surer of my diagnosis of migraine when I learn that the attacks usually follow excitement or fatiguing experiences, or come when the woman is going to entertain in her home, and I am sure when I get the story of a preliminary scintillating scotoma, or of an absence of the trouble during pregnancies.

Attacks of sudden, unexpected, or "projectile" vomiting should make the physician think of increased intracranial pressure due probably to a brain tumor. Vomiting with marked dizziness should suggest Ménière's syndrome with disease in the ear or brain. In older persons the only symptom of a thrombosis in a small intracranial artery may be a sudden attack of vomiting and dizziness. In many nervous women spells of vomiting are due to fatigue, jitteriness, worry, excitement, or premenstrual tension.

Nausea. When a patient complains of nausea I am inclined to look for disease in the lower rather than in the upper part of the digestive tube. The symptom seldom points to disease in stomach or duodenum but it can be the outstanding sign of slight obstruction in the lower part of the bowel. It can, of course, be present when a diseased gallbladder is giving trouble. When the nausea comes in waves I suspect that the patient is actually feeling waves of reverse peristalsis coming up the bowel. In favor of this idea is the fact that nausea is likely to stop instantly when the sufferer vomits or perhaps even when one big "burp" comes up. Apparently, waves running back over the bowel or stomach were trying to get through to the mouth, and the minute one did, the focus that was sending them out quieted down. Perhaps with the emptying or partial emptying of the stomach the pacemaker for the waves shifted back to the cardia where it normally belongs. There are good reasons for believing that nausea is not produced by reverse waves running over the stomach and esophagus. I refer to the fact that this symptom is not complained of by regurgitators, ruminators, and most belchers. The

indications are that nausea comes when reverse waves start somewhere in the small bowel.

I see many tense, frail, overly sensitive and tired women, not pregnant, who complain of morning nausea or nausea which lasts all day, and occasionally I see a man who has the same type of trouble. Such nausea seems to be nervous in origin and I suspect the sensation arises in the brain and has little to do with the bowel. I have known persons who had it most of the time for years without coming to any bad end. I believe it is nervous in origin because it always comes in persons who are inclined to neurosis, psychoneurosis, and chronic fatigue. That nausea can be psychic in origin is demonstrated by those women who get the distress when they think they are pregnant, and by those few men who get it through sympathy when the wife is pregnant. I have seen chronic daily nausea in a sensitive and highly allergic boy relieved by the giving of an elimination diet, and I have seen many other patients who got nauseated occasionally when they ate food to which they were allergically sensitive.

Nausea is usually severe during bad attacks of migraine. The mechanism then is probably the same as that which produces the terrible nausea of seasickness. I suspect that in these cases a "storm" runs down the vagus nerves to the upper end of the jejunum and from there causes waves to run orad toward the stomach. Similar storms must cause the nausea of patients with Ménière's disease and small intracranial thromboses.

In healthy persons nausea can come from eating too much fat at a meal, or from taking a somewhat emetic drug such as digitalis. I remember a case in which long-lasting nausea was due purely to the taking of aminophyllin for supposed heart disease. Always in cases of chronic nausea I insist on the patient's stopping all drugs for a few days to see if this will work a cure. The trouble may be due also to the chewing or smoking of too much tobacco. Nausea can easily be produced reflexly by distention of any hollow organ. It can accompany pain, and occasionally it is a sign of a failing heart. Physiologists have found that the heart has much to do with the mechanisms that produce nausea. Nausea is likely to be severe after any big hemorrhage. The fact that it can be severe during mountain sickness suggests that one cause is poor oxygenation of the tissues.

In the case of a woman with nausea one must, of course, always rule out pregnancy. Some women get nauseated for a day or two before menstruating. The young unmarried woman with nausea and no pregnancy must be asked as to how her love affairs are progressing. I have

seen nausea due to the psychic upset of a broken engagement. A few women have told me of having it following intercourse with an unloved husband. As everyone knows, nausea can be produced by unpleasant sights and smells and thoughts, and by disgust at the unattractive appearance of food. Some hypersensitive women will get nauseated when caught in a crowd. I have seen persons terribly nauseated when led to believe that some harmless food they had eaten was spoiled or contaminated.

There is a possibility that nausea is at times a sensation arising in the brain, but this would be hard to prove. It can be produced by faradizing the vagus nerve in persons under regional anesthesia. When nausea is present it can sometimes be influenced by changing the position of the body. It may be lessened by lying down or by lying on the left or the right side.

In certain factory workers nausea can be due to breathing some industrial poison. Morning nausea can be due to chronic alcoholism.

Belching. When a patient complains of belching the first thing I want to know is, Is he talking about an occasional belch or is he talking about a noisy series of belches which keep coming for a half hour or more? Repeated belching must always be due to the swallowing of air. Sometimes when I want to know how expert a belcher a patient is, I ask him to belch for me. If he does it to order it will be obvious to both of us that it is an accomplishment which can be indulged in at will.

As I explain elsewhere in this book, it is not enough to show a patient that he or she is an air-swallowing; one must go on to find out why the habit was acquired and why it is being indulged in. Is the patient nervous or psychopathic or ridden by some fear; is he slipping into a nervous breakdown; is he waking at night frightened by extrasystoles, or has he a bad hypertension or a failing heart?

Waves Running Up the Esophagus. There are several unpleasant sensations produced apparently by waves running up the esophagus. What many persons call a "burp" can be differentiated from several types of belches. Some belches feel as if they were due to a wave that came up all the way from the stomach bringing air with it, while others seem to begin in the back of the throat. Sometimes there are only curious musical or squeaky or rubbing noises around the pharynx or in the upper part of the neck. They may seem to arise there, but about this time the person will be feeling that waves are trying to come up the esophagus, and perhaps he will keep swallowing to try to force them down. Some are associated with a little taste of gastric contents, but many are not.

Some begin with a discomfort that makes the victim want to gape or stretch his neck, or which almost strangles him for a moment so that he cannot speak. Often, then, the patient will feel as if a reverse wave were running back up the stomach to break against the cardia. Occasionally this will produce a hiccup due to the fact that when the wave reaches the cardia it spreads out and stimulates the diaphragmatic muscle. When this hiccup is associated with a belch, this is often a particularly loud and explosive one, and one that is likely to embarrass the victim if he is out in public.

Some persons can feel or hear little waves gurgling up the esophagus and perhaps even out the eustachian tubes into the ear. Others will feel almost a pain when, somewhere along the esophagus, a downward wave and an upward one seem to come together. Sometimes, as in stout persons with a relaxed cardia, distressing regurgitation into the esophagus will take place if, especially after dinner, the person bends over to tie his shoes.

Heartburn or "Acid Stomach." Not all persons mean the same thing when they say they have heartburn, but usually they describe a burning or perhaps a hurting or rending feeling, which begins around the xiphoid appendage and runs up under the sternum. Usually, when showing where it is, the patient will run his hand up about halfway to the suprasternal notch, but occasionally he will point as far up as the notch or even to the pharynx. Only occasionally is heartburn associated with belching or the regurgitation of an acid or bitter fluid.

Heartburn is met with in persons with a subacid and even an anacid stomach, but more often it is associated with hyperacidity. Sometimes it is a symptom of ulcer. No matter how acid a juice is, it can seldom be felt in the non-ulcerated stomach, but in some cases it probably is felt when it gets up into the esophagus where it does not belong. In-co-ordinated contractions of the esophageal muscle, or perhaps distention of this tube, or inflammation of the mucous lining, may also be causes of heartburn.

A woman who often regurgitates acid gastric contents tells me that this material never causes a burning sensation in her esophagus. She has heartburn only if she eats cucumbers, radishes and green peppers. Curiously, she had severe heartburn during her pregnancies. A physician whom I have studied for fifteen years used to have heartburn when he had a hyperacid gastric juice, and he still has it, although not quite so badly, now that he has an anacid stomach! Such observations indicate

that there is something more to heartburn than the regurgitation of acid gastric juice into the esophagus. That gastric acidity has something to do with it is indicated by the fact that usually the taking of alkalis will give relief. Water and food usually do not work so well.

A tendency to heartburn runs in some families in which there are several members who spend their lives taking soda. The discomfort can be brought on in many ways, as by excitement or emotion, by getting angry, by eating too much, or by eating certain foods or drinking certain liquors or smoking certain brands of tobacco. Many patients have told me that after suffering for years with heartburn they suddenly got well for no reason that they could see. More details on the subject can be found in my book, "An Introduction to Gastro-enterology."

Water Brash. I do not hear of water brash now as I used to years ago when I was an intern in a big county hospital. There it was the complaint of the old bartender who, in those days, was supposed to have an alcoholic gastritis. Especially in the morning, he would find an acid or bitter fluid regurgitating into the pharynx.

A MISCELLANEOUS GROUP OF SYMPTOMS

Globus. It is important to get a history of globus because it so definitely points to a nervous or hysterical temperament. The fact that a woman has one hysterical symptom always makes me suspect that some of the others she complains of are of similar origin.

Salivation. Salivation is associated sometimes with nausea, but little is known of the mechanism of its production. I know one man who for years was so annoyed by it that at times he could hardly get to sleep. It caused him to swallow air and thus to fill his bowel with nitrogen. He finally discovered that the salivation came with canker sores and these were caused always by the eating of a little chocolate. Since stopping the eating of chocolate he has practically no trouble with salivation.

The coming of a sticky, ropy, or strangling type of saliva should make one think of brain tumor or a slight stroke.

Having to Get Up Toward Daybreak to Move the Bowels. There are many persons who have to get up around daybreak to pass gas or to have a bowel movement which is often soft. The cause of this syndrome is unknown. It was once thought to be due to achlorhydria, but in my experience it seldom is, or at least it is seldom helped by the giving of hydrochloric acid. Occasionally it is due to allergic food-sensitiveness; so a good question to ask is, Did the patient ever go without supper to see

if this brought relief? If it did, then there is hope of finding one or more foods that are responsible for the distress. One should ask also if a gastric analysis was ever made and if it showed achlorhydria. If it did, was hydrochloric acid ever taken in adequate doses, and did it help? Since sometimes it is spondylitic pain which gets the patient out of bed, I always ask about that.

Hematemesis. A history of hematemesis is important if one can be sure of it. Always I inquire as to details because occasionally it turns out that only a few unimportant blood streaks were seen after a bout of retching. In puzzling cases one must always think of the possible presence of cirrhosis of the liver.

Hemoptysis. Every so often I see a patient who says that on several occasions he has had a teaspoonful of blood come up into the mouth. Just where it came from he cannot tell, and often, in spite of much questioning and study, I cannot tell. All the patient may know is that he neither coughed nor vomited. Perhaps he hawked a little, but usually he says, "It just came." I have seen several of these persons in whom I could find no lesion in lung, stomach, esophagus, pharynx, or nose.

Tarry Stools. Unless one cross-questions the patient who says he has had tarry stools, one will make many a wrong diagnosis of ulcer. The essential points are, Did the man get weak? Did he faint in the bathroom; did he have to be helped into bed; was he later found to be anemic, and did he have to stay in bed for days or weeks afterward? The absence of such a history of faintness, weakness, and loosening of the bowel movements does not rule out a hemorrhage, but it should cause the physician to regard the story with skepticism. Questioning will often show that at the time the black stools appeared the patient was taking bismuth or some other substance which probably produced the darkening of the feces. I have seen many cases in which, although I could not explain the coming of a black stool, I could be fairly certain that the patient had not had a hemorrhage. In other cases I have thought it probable that there was a small amount of bleeding.

An important point that always makes me give more credence to the story of tarry stools is that, right after the apparent hemorrhage, the hunger pain and indigestion disappeared. This is so typical of what often happens in cases of bleeding ulcer that the observation has diagnostic value.

Red Blood in the Stools. Red blood in or on the stools should always make the physician think of chronic ulcerative colitis or carcinoma of the

colon or rectum, even when bleeding hemorrhoids are present. Blood on the toilet paper is likely to be from hemorrhoids or a fissure.

Flatulence. When a patient says he has gas I want first to know what he means. Does he mean that he belches or does he bloat, or does he pass wind? As I have already pointed out in the section on belching, most belchers are air-swallowers and many of them have no indigestion. To be really flatulent the patient should have some indigestion and abdominal distress and an excessive amount of flatus. Questioning may bring out the fact that the trouble is due to constipation, to overeating, to the eating of foods to which the person is sensitive, to cholecystitis, to a cold, or to emotion. I always want to know how heavily the patient is dosing himself with laxatives because they can cause flatulence.

I usually ask if the flatus is foul smelling because this often means that the patient has eaten food to which he is allergically sensitive, or perhaps he has eaten more than his bowel can digest at one time. Flatus without odor is likely to consist of swallowed air or gas that has diffused into the gut from the blood vessels. Further details about flatulence will be found in Chapter XXII.

Borborygmus. Borborygmus, or loud gurgling in the bowel, is often associated with flatulence and an irritable bowel. It can be brought on by emotion or by purgation. When it appears for the first time in a person past middle age, it always makes me think of intestinal obstruction and particularly of carcinoma of the colon.

Loss of Appetite. I always view with some concern the loss of appetite by a person who has previously enjoyed eating. In many cases, of course, the symptom is transient and due to a cold or some other little infection. In older persons I think of the coming of some serious disease such as cancer, a small stroke, heart disease, a brain tumor, tuberculosis, hypertension, or nephritis. Sometimes the loss of all desire for food is due purely to anxiety or unhappiness. As everyone knows, anorexia can be an outstanding symptom in persons who are slipping into a depression. Before attempting to make a diagnosis I like to find out if the patient has been taking some drug or smoking too much or learning to use dental plates. In many cases, I cannot guess what the cause is. More details in regard to this will be given in the section on anorexia nervosa.

Many a time, in a puzzling case in which I feared the presence of cancer, I have been cheered by the fact that the patient's appetite remained good. I have looked on this as suggesting the absence of cancer, and sometimes my hunch has been correct; at other times I was wrong. I can

remember some persons with advanced carcinoma who retained their appetite for food. After resection of the stomach for cancer the failure of the patient's appetite to return always suggests to me that metastasis has already taken place, and death is not far away. A newly developed dislike of meat is seen sometimes with cancer and primary anemia.

DIETETIC HABITS

In a puzzling case it may be helpful to find out under what conditions and how the patient usually eats; that is, whether he rushes out to a lunch counter, wolfs down some food, and rushes back again to work; if he talks business while he eats, or fights with the waiter, or eats with a wife or children or aged parents who upset him. Not infrequently one cannot help the patient so long as his habits of eating are bad. I am thinking particularly of tired mothers, restaurateurs, the owners of little grocery stores or delicatessen shops, or overworked doctors who rarely sit uninterrupted through a meal.

Doubtless much indigestion is due to eating too fast and much is due to eating too much. These sins must be asked about because seldom will the patient mention them. Often the spouse is the one who answers emphatically "Yes" when the questions are asked.

Eating too Little. In the case of older persons and confirmed dyspeptics who are so fearful of many foods that they live on only a few, I like to know what they have and have not been eating before I start to widen their diet. When the patient has been living on a narrow diet, I want to know if there has been any sign of possible avitaminosis such as bleeding gums, sore tongue, neuritic pains, edema, diarrhea, or anemia. Curiously, I rarely can get a history of such symptoms even when the inadequacy of the diet would lead one to expect the presence of scurvy, pellagra, beriberi, and a few other avitaminoses.

Drinking Unnecessary Water. In these days when many physicians and dietitians are exhorting everyone to drink large amounts of unneeded water, I find it helpful occasionally to ask the patient if he has been following the present-day fad and trying to drown himself from the inside out. I have seen several persons with heart and kidney disease who got themselves into serious trouble in this way, and I have seen the drinking of excess water produce puzzling insomnia, diarrhea, polyuria, edema of the ankles, and indigestion. I remember a woman with a diarrhea that no one had been able to stop. It stopped overnight when I got her to give up her three extra quarts of water a day!

Actually, physiologists cannot see the reason for our taking more water

than our body calls for or needs. Its handling and excretion only means more work for heart and kidneys. Fortunately, the body's need for water is exactly determined by the individual's thirst.

ABUSE OF PURGATIVES AND OTHER DRUGS

It is important sometimes to find out what drugs the patient is taking. The daily use of purgatives can, of course, produce indigestion, flatulence and diarrhea. An excessive use of sodium bicarbonate can cause headache. An excessive and careless use of the new aluminum antacids can cause fecal impaction. The use of hydrocarbon oil can cause indigestion.

In rare cases laxatives containing karaya gum will produce headaches, migraine, hives, and other allergic distresses. An excessive use of bran and other forms of roughage can cause indigestion.

Occasionally the secret of a patient's trouble will be found when it is learned that every day he or she takes large amounts of some drug such as aspirin, bromine, belladonna, phenobarbital, cinchophen, amino-pyrine, or desiccated thyroid substance. Many persons are perhaps harming themselves by taking each day a large amount of caffeine in the form of coffee and coca cola. It has recently been found that the daily use of bromides can produce a mild psychosis. In rare cases belladonna will also produce mental confusion.

EXCESSIVE USE OF TOBACCO

In all puzzling cases it is well to find out if the patient is an excessive user of tobacco. Many nervous women now smoke too much, and tabagism can cause poor health, rapid pulse, palpitation, loss of appetite, heartburn, shortness of breath, precordial distress, loss of weight, nausea, hunger pain, and other troublesome symptoms.

ABUSE OF ALCOHOL

Often the physician can tell from the patient's appearance, a slight tremor, a reddish complexion, and a silky skin that there has been an excessive consumption of alcohol, but in other cases the ravages of the drug are not so apparent, and the physician must remember to ask about its use.

METALLIC POISONS

In all cases of puzzling vomiting, diarrhea, intestinal cramps, generalized pain, or numbness, with signs of neuritis in arms and legs, the physician should inquire into possible contacts with lead or arsenic.

WEAK SPELLS AND FEAR OF FAINTING

One learns much about the vasomotor nerves of a woman when she says she is subject to "weak spells" or spells when she fears she is going to faint. Sometimes there is just a feeling of uncertainty as if an attack of vertigo were coming or the patient were going to float away. Sometimes with such spells there is a feeling as if the bowels were going to move. Vision may become fuzzy or there may be a little nausea. One will want to know then what seems to bring on the spells. Some of these persons belong in the group whom I have described elsewhere in this book as suffering from nerves that are playing tricks on them. Occasionally a woman like this is slipping into the menopause, or she has a low blood pressure, an orthostatic hypotension, or an irritable carotid sinus. Usually she is just near the end of her rope nervously.

LOSS OF WEIGHT

A marked loss of weight is a symptom that often has a serious import, and hence its cause should always be searched for immediately. Especially in the case of older persons, I dare not rest until either I am fairly certain as to what has happened, or I see that the patient is gaining again. Such a gain, of course, does not always mean that the patient is out of danger. I once saw a man with a cancer of the stomach gain 25 pounds on a Sippy regimen.

Always I want to find out if the loss of weight followed a cutting down on the amount of food eaten or a change to a diet deficient in calories, fat, or protein. Perhaps a physician was trying strenuously to cure allergy, hypertension, ulcer, or diarrhea. Perhaps in the case of a woman, the trouble began when she tried to reduce with some freakish diet. After a time she lost her appetite, and later she couldn't seem to stop losing. Occasionally, I see an older man or woman whose loss of weight came while he or she was without teeth or trying to get used to plates.

Especially when I find that the diet has been adequate, I begin a search for carcinoma, hyperthyroidism, diabetes, nephritis, pernicious anemia, or some other serious disease. I ask about excessive sweating, palpitation, or feelings of warmth, or polyuria with increased appetite, or numbness and tingling in the legs. Sometimes in older persons, failure in health and a surprising loss in weight are due to a small unrecognized intracranial thrombosis. Occasionally it is due to the taking of some toxic drug such as digitalis.

Because some of the more remarkable and rapid losses of weight that I have ever seen were due to purely psychic causes, I am always on the watch for this type of neurosis, and often I have to dig for the story. I give examples of this sort of thing elsewhere in this book.

CONSTIPATION

If constipation is present I want to know if it is recently acquired or if it has been present for years. Naturally, the constipation that comes out of a clear sky in a person past middle age is likely to be serious, because so often it is due to the blocking of the colon or the pylorus by a carcinoma. Constipation is probably due at times also to disease in the gallbladder, which causes spasm of the muscle of the colon. Occasionally it is due to an allergic sensitiveness to some food. Usually the causes are to be found in our civilized way of living.

As I show elsewhere in this book, it is highly important to find out if a puzzling indigestion is due to constipation. Sometimes when questioned on this point the patient will say, "Why yes, whenever my bowels are well cleaned out or are moving well I have neither gas nor indigestion nor abdominal discomfort." What happens is that when the colonic plug is removed, the downward current in the stomach and small bowel becomes normal again.

Before attempting to treat constipation I inquire as to the length of time that the patient can go comfortably without a bowel movement and the therapeutic measures that have already been carried out and found either wanting or else only temporarily useful. More details are to be found in the chapter on constipation.

PENCIL OR RIBBON STOOLS

It is hard to know whether a history of passing stools of small diameter means anything. Certainly such stools can easily result simply from a softening of the fecal material. It is possible that in some cases they are due to a tightly contracted anal ring. I doubt if this symptom often helps in making the diagnosis of carcinoma of the rectum.

DIARRHEA

Much can be learned about a patient's diarrhea by taking a good history, and actually in most cases the diagnosis must be made from the history because examinations of the bowel and the stools will all be negative. First, one must find out exactly what the patient means by diarrhea.

I remember a man with exophthalmic goiter whose bowels moved twelve times a day, but questioning showed that the fecal matter was hard and ovulated. If his good doctor at home who found a few amebae in the stools had only found this out he would never have thought of the man as having dysentery.

I remember a young woman who was brought to me because of "diarrhea" supposedly due to a tuberculous typhlitis. Her supposed pulmonary tuberculosis turned out to be a nervous breakdown due to an unhappy love affair, her fever was a nervous hyperthermia, and her "diarrhea" proved, on questioning, to be something very different. What happened was that whenever she got excited over going out with a beau, her rectum kept forming gas and mucus; so she had to go to the toilet every twenty minutes. The all-important point was that there never was any fecal matter with the mucus; so actually, she didn't have any diarrhea.

Whenever I suspect I am dealing with a nervous type of diarrhea I ask whether the patient and perhaps others in his family have always had a tendency to get loose bowels under excitement, as when starting on a journey (see Chapter I). I am sure there is a hereditary tendency to this sort of thing because it runs in families. Characteristic of a nervous diarrhea is the story that occasionally "out of a clear sky" the patient will have one or two large soft movements. In such cases questioning often reveals the fact that at the time, the patient was seized with a panicky fear. In other cases in which diarrhea comes in spells lasting only a day or two, an allergic cause should be looked for.

Always I like to find out if the diarrhea wakes the patient at night because this points to an organic cause, with ulceration of the colon. Morning diarrhea or the passage of one soft stool before breakfast is supposed to be due to achlorhydria, but in my experience, the lack of acid in the stomach rarely causes trouble.

It helps to learn that diarrhea has been present for years without pulling the patient down because this generally means that it is functional in type. It helps also to learn that the nature of the diet has little influence on the number of bowel movements because this, again, suggests a functional trouble. It may be helpful also to learn that the diarrhea followed an infectious disease, or an attack of "food poisoning," or a trip to a tropical country. It may help to learn the results of overhaulings elsewhere, and it may help to know about various treatments that have been tried and found wanting.

Severe diarrhea with liquid stools which contain pus and blood and

wake the patient at night is usually due to ulceration of the colon. Fever, prostration, and complications such as arthritis and perianal abscesses indicate usually the presence of chronic ulcerative colitis. Tenesmus indicates inflammation or ulceration in the rectum. A bloody "diarrhea" in an older person suggests the presence of a carcinoma of the rectum.

Diarrhea that alternates with constipation may be due either to the rotting of stagnating feces in the cecum, with irritation of the mucosa, or to the purgation resorted to in an effort to relieve the constipation.

More information as to diarrhea will be found in Chapter XXXI.

DYSPHAGIA

When I hear of puzzling pain in the upper abdomen I try to remember to ask the patient if he or she can swallow comfortably because, for some unknown reason, persons suffering with mild dysphagia seldom mention it when the history is being taken. There are several types of difficulty in swallowing. Commonest, perhaps, is a long-lasting but somewhat intermittent difficulty due to cardiospasm. Sometimes before the spasm shows itself the patient will complain of epigastric pain. In cases of cancer of the esophagus or cardia the difficulty in getting food into the stomach is likely to become steadily worse. The dysphagia due to diaphragmatic hernia may be mild and intermittent, and much of the distress may come when the patient lies down. In such cases it may help to ask if the trouble followed an auto accident. In cases of hysterical dysphagia the patient finds it hard to start the swallowing act, especially when he or she is trying to take a pill. She may be able to eat at home but not at a restaurant.

DISTRESSES IN THE MOUTH

When a patient complains of sore mouth, sore tongue, sores in the mouth, sore gums, a burning, an acid or a bad taste, or a coated tongue, questioning may bring out a few helpful points. The presence of a sore mouth or tongue makes one think of pernicious anemia, sprue, and pellagra, and it should cause one to ask about diarrhea, numbness in the legs, and the adequacy of the diet.

Nervous women of menopause age sometimes complain of a burning in the mouth or of an acid or a bitter or a metallic taste. Nothing can ever be seen locally to account for it, and the fact that sometimes the trouble affects only one-half the tongue indicates that the cause is in the nerves or the brain. In such cases it is well to ask if the trouble came suddenly

one day, perhaps with some dizziness, nausea, or mental confusion, such as would indicate the thrombosis of a small intracranial blood vessel.

One hears the complaint of a sour or a bad tasting mouth in rare cases of ulcer. A scratchy throat is usually due to a granular pharynx, for which little or nothing can usually be done.

Canker Sores in the Mouth. These are little white painful patches which last usually for five days. Since the only cause I know for them is food allergy, I always ask about known food sensitivities. Chocolate seems to be a common offender. Colds are an occasional cause. I suspect that psychic factors are sometimes at work.

FOOD SENSITIVENESS AND ALLERGY

In all puzzling cases of indigestion I like to ask if the patient knows of any definite idiosyncrasies to food. If a man knows that he can never eat certain foods without suffering, then it may be that the distress he is complaining about is due to the eating of some food or foods which he hasn't yet suspected of being harmful to him. Or, knowing that he is sensitive to, let us say, egg, he may still be eating angel food cake or puddings that are made with egg.

The fact that a man or his close relatives have suffered with some allergic disease such as hay fever, asthma, or eczema will also cause me to suspect that the indigestion complained of is allergic in origin. More on this subject can be found in the chapter on allergy. In Chapter XII on the "dyspeptic" I describe the differences between the story of indigestion as it is told by dyspeptic and allergic patients. Food sensitiveness is taken up in detail in Chapter XXI.

JAUNDICE

Patients with a purely functional indigestion or one of those puzzling sorenesses or "miseries" in the right upper quadrant of the abdomen commonly deceive their physician and sometimes talk themselves into a futile operation by saying that on one or more occasions they were jaundiced. Commonly I find, on cross-questioning a person with such a story, that he never was really jaundiced. What happened was that someone thought he was sallow or "bilious." Especially in the case of persons whose hair has a peculiar light color this may not mean anything, and usually it does not incriminate the liver or gallbladder.

Sometimes it helps to get the patient to admit that at the time when he thought he was jaundiced his urine was not reddish and his stools

were not white. Carotinemia can easily be recognized, when present, by the fact that it affects not the sclera, but the skin around the mouth and the calluses of the hands.

When a patient is jaundiced there are a number of questions that could be asked with the idea of throwing light on the diagnosis. What I want to know is, Is the jaundice familial, hemolytic, intrahepatic, or obstructive? If it appears to be obstructive in origin, I want to know where the obstruction is and what it is due to. It is beyond the scope of this book to go into these problems in detail. Suffice it to say that when there is an old history of colics, a jaundice which began with pain and which varies in intensity from week to week suggests the presence of stones. Much itching, especially before the jaundice came, suggests hepatic disease. Especially in the absence of colics and in older persons, a steadily deepening jaundice suggests carcinoma of the pancreas or bile ducts. Recent statistics show that cancer of the pancreas is commonly associated with pain. Slight, long-lasting yellowing of the skin, with a history of similar trouble and anemia in other members of the family, suggests a familial jaundice. In younger persons painless jaundice of short duration with perhaps a little fever will probably be infectious in nature. In cases of severe painless jaundice I always want to make sure that the patient has not been taking some drug such as cinchophen or salvarsan. Sometimes it helps greatly to find that when the jaundice came there was an epidemic of the disease in the town.

If cholecystectomy was ever performed, details should be inquired into. Why was the gallbladder removed? Had the patient suffered with colics and flatulent indigestion, or was the organ taken out just because with the dye it seemed to fill or empty poorly, or because someone thought the films indicated adhesions? What was found at operation? Were there stones, and were any found in the common duct? The significance of these questions and many more will be found in the chapter on the postcholecystectomy syndrome.

I like to find out if the patient was any better for the cholecystectomy because, especially when no stones were found and the symptoms continued unchanged, the probability is that a mistake was made, or if there is some evidence that there was disease in the gallbladder, it obviously was not producing the patient's distress.

HEADACHE

To avoid many repetitions I have put all the information which might well go here in the chapters on headache and migraine,

FOCAL INFECTIONS

Many of the nervous patients I see are under the impression that they have a bad sinusitis. Perhaps they have a postnasal drip or frequent colds, and roentgenograms of the sinuses suggest the presence of thickened membranes. But usually examination of the nose shows nothing wrong, and washing of the antrums reveals no pus. Perhaps there are some signs indicating a vasomotor rhinitis or an allergic type of nose.

I have found it helpful often to ask the patient if, at the end of the day, his handkerchief is clean, because if it is, his sinuses can hardly be diseased. If there is a postnasal drip, I ask what the material hawked up looks like; if it is a whitish jelly, I know that it is not pus, and therefore there need be no fear of systemic bad effects.

ARTHRITIS

Arthritis is so common a complaint in persons past forty that every day the gastro-enterologist keeps running into it and the related periarthritis, fibrositis, neuritis, and myositis. He must always be on the watch for the arthritic constitution because it accounts for so many of the pains and aches and discomforts that he will be called upon to treat.

Usually I can tell that the patient is an arthritic by getting a history of several episodes of spondylitis, sacro-iliac or sciatic pain, and pain and stiffness in several joints. A history of flare-ups of pain on days when a storm is approaching, or of improvement with a little exercise will suggest that the trouble is arthritic in origin. Sometimes it can be found that an attack of arthritis followed a psychic upset.

THE PRESENCE OF A CARDIAC NEUROSIS SUGGESTS THAT THE ABDOMINAL DISTURBANCE IS ALSO FUNCTIONAL IN NATURE

When I suspect that an indigestion or abdominal discomfort is nervous in origin, my hunch is strengthened when I find that the patient has a typical cardiac neurosis with palpitation, extrasystoles, or the nervous type of air hunger. Once I get the story of a cardiac neurosis I tell the patient that the same nerves that are playing tricks with his heart are playing tricks also with his digestive tract.

DIAGNOSTIC SIGNIFICANCE OF AN IRRITABLE BLADDER

Often I learn much about the bad state of a woman's nerves by finding that she has to urinate every hour or oftener during the day, in spite of

the fact that she has a clear watery urine without a single pus cell. Usually such a woman does not have to get up often at night, but in some cases she does. A cystoscopic examination then shows either nothing or a slight inflammation of the urethra or the trigone.

INSOMNIA

Always, and especially with nervous patients, I like to find out if there is trouble with sleeping, and if so, how bad it is. What does it seem to be due to? Is it due to too great tenseness, working late at night, staying up too late, worrying and thinking troubrous thoughts, the mate's snoring, crying children, a noisy neighborhood, pain, arthritis, muscle cramps, indigestion, priapism, or getting up to urinate because of a bad prostate or the drinking of too much water? Often I want to know if it is hunger pain or the need for emptying the bladder that wakes the patient or if he or she gets up to take food or urinates several times a night just because of wakefulness.

Always before attempting treatment of insomnia I want to know if the patient has difficulty in getting to sleep, or if he gets to sleep easily enough but then wakes and finds himself unable to get to sleep again. If he wakes I want to know at what hour because, as I point out later, this may make a difference when it comes to choosing a drug for him. Perhaps he sleeps but has nightmares and thrashes about restlessly all night. If the patient is a woman, is she sleeping with one eye open because of anxiety over a sick child, or is she waking perhaps because of hot flushes? What drugs have been tried and how did they work? The reasons for asking these questions are discussed in the chapter on insomnia.

FINDING OUT IF THE PATIENT HAS A NERVOUS BREAKDOWN

Often we physicians fail to help a patient and sometimes we have him operated on unwisely because we do not recognize the fact that he is in a nervous breakdown. Much information on the subject is to be found in the section on determining what type of person the physician is dealing with, and more is to be found in the chapter on nervous breakdowns.

All I will say here is that I have found it helpful often to learn if the patient can work, read with comfort, sleep, make decisions quickly, and control his emotions. If he cannot do these things, if his disability is all out of proportion to the severity of his symptoms, and if there are changes in character, perhaps with a mixture of restlessness, apathy, and over-emotionalism, his main difficulty is in the brain. An inability to

read anything of any length or importance is a symptom particularly helpful in picking out those persons whose brain has become very tired.

I always feel concerned over the woman who says she has lost contact with and interest in the world or who has lost her feelings of love even for her mother and children. This is a sign that something has gone decidedly wrong with the brain.

FATIGUE AND EASY TIRING

A common complaint of many persons is constant fatigue. Most physicians put these patients through one extensive overhauling after another but usually I can see little reason for this because in so many cases the diagnosis can easily be made from the history. In the first place, in nervous persons, the symptom is worse than fatigue: it is described as a horrible distress or a burdensome feeling or a depression that causes the patient to dread getting up and facing the day. It is worse in the morning and tends to fade out during the day. Work, instead of making it worse, often relieves it. Usually the patient has not been overworking or carrying heavy mental burdens. The distress is not relieved by a month's vacation as it would be if it were due to hard work. The fact that it has been present for years without bringing the patient to any bad end rules out several possible causes. Finally, one can often see that the patient is neurotic, and questioning will reveal that he or she has a poor nervous heredity. In the worst cases one or more ancestors suffered with melancholia.

Curiously, the persons really tired out from over-work—charwomen and poor widows slaving for eighteen hours out of the twenty-four, seldom go to the doctor to complain of fatigue. They haven't time or money, and besides, they know what is the matter with them. Occasionally, of course, a fatigue state will follow a bout with some infection such as influenza. More on the diagnosis of fatigue states will be found in Chapter XIV on nervous breakdowns.

DIZZINESS

The patient who suffers with dizziness usually goes to the gastro-enterologist because he thinks the cause of his trouble is in the stomach or bowel or liver. I doubt this, and I think it far more probable that the lesion is in the ear, the eighth nerve, or the brain. Especially when the symptoms come suddenly out of a clear sky in a person past middle age, I suspect thrombosis of a small blood vessel. In other cases the trouble may be due to an infection. Occasionally I see "dizziness" due apparently to the meno-

pause, to a remnant of an old migraine, or perhaps an equivalent of insanity.

I like to find out how suddenly or slowly the symptoms came and, if the onset was sudden, at what time of day the first symptoms came. Thromboses commonly come in the early morning. Sometimes they are followed by changes in character and loss of all joy in life. How bad was the dizziness? Did the patient have to stay in bed for a while, or was he able to keep up and about? Was there deafness, ear noise, nausea, or vomiting? Did the patient have a cold at the time? Did he have chronic ear disease to begin with? How long did the acute symptoms last? Were Bárány tests made, and what did they show? Perhaps the patient knew he had high blood pressure. Perhaps the dizziness comes with sudden changes of position. More details are to be found in Chapter XXXIII.

NUMBNESS

Numbness sometimes frightens a patient, especially when it involves the left arm or leg. The patient will fear that a stroke is on the way, but rarely does this foreboding seem to be justified. I often suspect that the patient has gotten into some habit of curling up in his sleep and lying on the affected limb. In older persons sclerotic changes in the arteries of an arm or leg may have so interfered with the circulation of the limb that it takes less pressure now to make it numb. Numbness in the legs will make one think, of course, of a primary anemia. One will want to know how long it has been present and if there were similar episodes in the past. Was there any weakness of muscles? Does the limb get cold? Is the patient tired out?

URTICARIA

In all cases, particularly of giant urticaria in adults, the first thing I ask is, Did the patient suffer any heartbreakingly psychic shock, or did he have any serious cause for worry just before the first crop of lesions appeared? Often questions along this line will bring forth a remarkable story of tragedy or strain which evidently started the trouble. I remember a nurse who would get a crop of giant hives whenever she lost her temper.

In many cases, of course, one must ask if there are any foods that have seemed to cause the trouble, and if the patient suffers from other manifestations of allergy. Sometimes I want to know if skin tests have already been made, and if so, what they showed. Did it help to stop using the foods that caused reactions in the skin?

HYPERTHYROIDISM AND HYPOTHYROIDISM

There are many puzzling cases in which a woman will at first sight seem to have a number of symptoms of hypothyroidism, but further questioning will show that she also has symptoms of hyperthyroidism. I ask about feelings of fatigue and weakness in the knees. Is the woman sleepy during the day, and does she feel slowed up? Or has she insomnia, and is she jittery and restless? Is she gaining or losing weight? Is her skin moist and does she perspire to excess? One must distinguish between perspiring all over and just in the hands. Are her skin and hair dry and does she perspire but little? Does she feel too warm? Does she want to open windows and kick off the bedclothes, or is she too cold? Again, the physician must be sure that it is coldness all over that she is talking about and not just coldness of the feet at night. Coldness of the feet does not mean that the thyroid gland is functioning poorly. Has she ever had estimations made of the basal metabolic rate, and what did they show? Was she given desiccated thyroid, and if so, what was the result? Did she ever have a goiter?

SWEATING

It is helpful often to find out if the patient perspires to excess. If he does, does he feel too warm? Does he perspire to excess always or just when it is warm or when he is tense and nervous? Does he perspire only from certain parts of his body as the hands, feet, or neck? As I said in the last paragraph, only the constant tendency to perspire all over by a person who feels too warm is likely to be significant.

There is a type of nervous person who often perspires excessively but who has a cool skin and a normal basal metabolic rate. I think the cause must be an overly active sympathetic nervous system.

Cold, clammy, bluish, sweating hands are highly diagnostic of a certain type of tense, worrisome personality.

THE PATIENT WHO HAS BEEN OPERATED ON

The questions that should be asked of the patient who returns with trouble after a cholecystectomy have been enumerated in the sections on jaundice and the postcholecystectomy syndrome. When a patient returns with trouble after a gastro-enterostomy or gastric resection, the first things I want to know are: Did the man have an ulcer to begin with; was it responsible for his symptoms, and if so, where was it, in stomach or duodenum?

If (1) it is learned that before the operation the patient suffered with typical symptoms of ulcer, if (2) an ulcer was reported by roentgenologists and later found by the surgeon who operated, and if (3) the symptoms were relieved for a time after the operation, there will be little doubt that the troubles were due originally to an ulcer which quieted down or healed for a time. The question in my mind will then be, Are the new symptoms due to a malfunctioning gastro-enterostomy, to a reactivation of the old ulcer, to the development of a jejunal ulcer, to a herniation of the bowel through the rent made by the surgeon in the colonic mesentery, to a neurosis, or to disease in the gallbladder or some other abdominal organ?

A feeling of fullness, or faintness, and warmth, with sweating and nausea shortly after meals will suggest that the stomach is dumping its contents too rapidly through the stoma into the jejunum. A history of vomiting, pain, sloshing of fluid around in the stomach, and loss of weight will suggest obstruction at the stoma.

If pain has returned and is relieved as before by the taking of food it is probably due to an ulcer. If it is in the old place in the upper part of the epigastrium it is probably due to a reactivation of the old ulcer, but if it has moved to a point a little below and to the left of the navel it is due to a new jejunal ulcer. If a patient who never had a hemorrhage in the years before he had an operation on the stomach is now bleeding he probably has a new ulcer, this time in the jejunum.

Mild diarrhea after the operation may be due to a "dumping" stomach or to jejunitis, while severe diarrhea with the almost immediate passage of unchanged food from stomach to rectum is due to the presence of a gastro-jejunocolic fistula formed by the perforation of a jejunal ulcer into the colon. In some of these cases the patient has a fecal odor on the breath. Years ago I saw a few cases in which diarrhea was due to the fact that a would-be surgeon had inadvertently made a gastro-ileostomy or a gastro-colostomy.

Bloating, severe nausea, and other signs of intestinal obstruction after any abdominal operation will suggest that something has happened to occlude the lumen of some part of the bowel. Occasionally it is due to the presence of an intestinal cancer which was overlooked at the time of the operation.

Sometimes careful history-taking will bring out the fact that the symptoms experienced before the gastro-enterostomy were not those of ulcer but rather those of cholecystitis or migraine or a nervous breakdown. Obviously, then, the patient could not have been expected to get well after

the operation. The persistence of attacks of pain requiring morphine points more to the presence of cholecystitis. Also in favor of a diagnosis of cholecystitis would be the presence of a distress that comes in the evening and keeps the patient from *going to sleep*. The distress of ulcer is more likely to come after midnight *after the patient has gotten to sleep*.

SEXUAL PROBLEMS

In many cases the physician needs a sort of sixth sense to tell him that there is some sexual unhappiness back of a group of symptoms, and then he must try as tactfully and in as kindly a way as possible to get the patient to tell the story. I am particularly inclined to do this when a woman shows signs of deficient sexual development, such as flat or nodular breasts, with hair on the nipples, face, thighs, or middle abdomen, or an infantile type of uterus with scanty and perhaps painful menstruation.

Often a married woman of this type is frigid or dyspareunic and is anxious to talk to someone about a situation which is putting great strain on her marriage, and perhaps is threatening disaster to her and her children. For obvious reasons no one should be around when the physician asks about sexual frigidity and lack of orgasm. Even when no one else is present the woman may at first say she is normal sexually when later she admits she is not. The psychopathic, reserved, sexually inadequate, or homosexual unmarried woman may also be glad to talk over her sexual problems with someone who has understanding and sympathy. The more really interested and sympathetic the physician is the more likely he will be to get the story.

Time and again, after getting an interesting and important story of sexual unhappiness, I have found that the woman had been to several physicians, complaining each time perhaps of a little indigestion but really looking for someone to whom she could bring herself to talk about her problem. Each time she could not bear to broach the subject; the physician did not think to ask about it, or he did not ask tactfully enough, and, as a result, each time she went away unhelped.

The wise physician will not write down a woman's secret story of sexual unhappiness or perhaps family tragedy as she tells it. When I start trying to draw out this part of the story, or when I sense that the patient wants to talk to me about secret things, I put away the history sheet and say, "This is off the record." We physicians would hate to have any such secrets of ours put down and left lying around, especially in a large institution where desk girls, nurses, interns, and others can pick up the record and read it.

If an assistant or a nurse is in the room, he or she must be dismissed. Only occasionally does it help to have a mother, sister, or husband present at an interview when secret worries or sexual difficulties are being discussed. Usually the two persons must be interviewed separately before the problem can be talked over with the two together, and then the physician will not reveal confidences made by either one.

When a woman complains of sexual anesthesia, I want to know if it was present from the start of a marriage or if it came later. If it was present from the start, it is probably either constitutional or psychic in origin or due to lack of love for the husband. Perhaps he never won her. If so, I ask her why she married a man she didn't love. Was she still under the influence of some loved person who lost interest in her or proved unworthy or died? If she was in love with the husband, if she loves to be kissed and caressed, and if intercourse is not painful, she probably has one of those peculiar psychic aversions to intercourse which are hard to understand. I think they are inherited. Some may be due to years of bad religious and sexual training by a frigid mother.

If sexual relations were at first satisfactory and later became distressing, the causes for this must be gone into. There may have been quarreling or the discovery of infidelity, or fear of pregnancy, loss of vitality and health, loss of interest in sex, the development of an aversion to the sexual act, loss of orgasm, pain in the vagina following the birth of a child or the coming of some pelvic inflammation, perhaps premature ejaculation by the husband, or an inept approach. Later in life there may be menopausal changes, psychic or physical, or ceaseless grief over the death of a child. Sometimes it helps to learn that the woman has had sexual experiences with several men, because then she may say that she had satisfaction with some and not with others, or she was anesthetic with all, and this will tell much about her.

The Help That Can Be Gotten from Telling a Story Similar to the One One Hopes to Get. Many a time the only way in which I was able to get the important story of unhappiness, marital strain, or sexual incompatibility was by telling one or two stories similar to the one I thought I might get. Then the patient who had previously been reticent and mentally inaccessible said, "Well, my experience was a little different from that," and she went on to tell her story of disaster and mental torture.

Often also when I am trying to get a woman to confess what has gone wrong in her life or home, I will tell one or two short stories to illustrate the remarkable relief of symptoms that some patients have gotten from

mental catharsis. She will see then, first, that I am not prying into her affairs from idle curiosity, and second, that a confession may cure her.

The Unhappy Marriage. If the patient's marriage is unhappy, I want to know about it because this commonly accounts for the symptoms complained of. Often it takes pertinacity to get this story because the first answers will be designed to deceive. In many cases I can sympathize with the woman's reluctance to discuss the difficult and unhappy situation at home. Often she doubts if it is really responsible for her troubles, or she feels that nothing can be done about it, or she hates to talk with anyone about such an intimate matter, or she refuses to face the fact that she wants to leave her bed. Commonly, she feels a sense of loyalty to the husband, and as she may say later when she admits that she lied, so long as she was eating his bread she felt she should not tell tales about him or complain of his behavior. Sometimes she does not complain because, as she says, his inability to be a lover, or his curse of drinking or shiftlessness is inherited; it isn't his fault, and aside from this he is sweet and good.

Many a woman says truthfully that she has a lovely home and a good kind husband with whom she has rarely had a cross word. What she does not say is that she does not love him; perhaps she married thinking she could learn to love. Perhaps he bores her, or depends on her so much that she dreads Sundays, holidays and vacations when she is cooped up with him. If any sex life remains it is a trial to her and an indignity. Night after night she lies awake wondering how she can get free, but several things interfere. Often she feels too ill to leave and go on her own, or there are children to be thought of, and later when they are grown and gone, the woman is too kind to take a step that will hurt the man and perhaps cause him to become demoralized. As she says sometimes, he wouldn't even understand why she wanted to leave; he thinks the marriage is beautiful, and outwardly, of course, it has been a successful one. Often it would be a big wrench for the woman to make a change, and the neighbors would talk, or it would be hard for her to start again and earn a living. So she goes on with her insomnia, her migraine, and her sore colon. She is caught in a trap, the door to which is closed perhaps by her fineness, kindness, and sense of duty, and there is little the physician can do for her save to express his sympathy and admiration.

Why Women Lie to the Physician. There is another reason why women often lie to the physician and conceal the all-important story of unhappiness or psychopathic thinking, and that is because at the first interview they come to like him as a friend, and then they want to appear well in

his eyes. For this reason England's great psychiatrist, T. A. Ross, said that if the physician is to get from a woman or even a man the often all-important history of sexual difficulties, unhappinesses, or follies he had better go after it at the first interview, while the patient still regards him impersonally as a physician and a stranger.

Another reason for a woman's reticence, especially when she lives in a small town, is that she fears that the doctor's wife or his office nurse or even he himself is not above blabbing a bit. Many a woman has told me this, and has then poured out her story of sorrow or shame, perhaps because she felt I was so far away that even if I were to talk, the secret would never filter back to her neighbors.

The First Interview Is Important. Because of the tremendous importance of the first interview, when the physician either grips the patient to him or does not, Ross felt that it should never be hurried and should commonly last an hour. One reason why I like to reserve plenty of time for it is that if the patient should succeed in breaking through her reserve sufficiently so that she can start telling me the all-important secret story of sexual unhappiness or psychopathic thinking, I must not stop her because I might never get her started again.

The Problem of the Celibate Woman. I usually say to the nice-looking unmarried woman past thirty who appears to have a neurosis, "How does it happen that an attractive woman like you has remained single? Was it through choice or because of economic necessity or some tragedy?" Perhaps then I learn that there was an unfortunate venture into marriage which wrecked the woman's nerves, or there was a broken engagement or the death of a person much loved, or there was need for supporting parents or putting brothers and sisters through school. Sometimes a fiancé couldn't make enough to support two, but often the woman's failure to marry was due to her repeated illnesses, her headaches, or her lack of "pep" which caused her to refuse many an invitation to go out. In other cases the failure to marry was due to the machinations of a jealous or psychopathic mother or father. In some instances it was due to the patient's lack of sexuality or interest in men, to hypo-ovarianism, to homosexuality, to a reserved schizoid temperament, or to a selfishness which makes it impossible for her to be interested in others or to love anyone deeply or permanently. Perhaps also she has a bad temper, especially at menstrual times.

Sometimes it appears probable that the woman is honest when she says she is satisfied as she is, and that she would not care to be married, but in

other cases she admits that much unhappiness is due to the celibacy, with all its loneliness, feelings of futility, economic worries, lack of a home, and perhaps some unsatisfied sexual hunger. Such unhappiness and strains should be known about because they can cause or keep up a neurosis.

THE FAMILY HISTORY

I like to wait to ask about the family history until I know what type of heredity I want to learn about. Then I can ask questions with much more purpose, care, and pertinacity than otherwise I could do. For instance, if a middle-aged woman comes complaining of indigestion, a tendency to loose bowels, weakness, loss of weight, and numb feelings in her legs, I want to know if any of her relatives ever had a serious type of anemia. But when a sullen-looking young man comes complaining of having fallen unconscious a couple of times, I keep asking about the nervous characteristics of the family until perhaps I find that one or more relatives have had epilepsy or some nervous disease which suggests an epileptic equivalent.

When inquiring about insanity and epilepsy one must be particularly subtle and tactful. The intern who asks bluntly about mental diseases is usually told that there has been no such trouble in the family. But later if I ask about persons with fainting spells, forgetful spells, nervous breakdowns, alcoholism, vagabondism, or violent temper, I can often draw forth a good history of atypical grand mal, petit mal, or equivalents of insanity in several relatives.

Always, of course, when such a history is obtained one must be careful to make sure that the afflicted members of the family were related by blood and not by marriage. Often, also, one must find out if a dementia came late in life because then it may have been due purely to arteriosclerosis and senility.

Sometimes, in order to get the important story of bad heredity from a reticent patient, I have to explain why it is so important that I get it. I point out that it may save him or her from being given a wrong diagnosis and wrong treatment. I try also to get the patient to see that before his physician he need feel no shame about his nervous inheritance. If he has a poor one it is through no fault of his.

As I have already implied, it is important always to avoid those unpleasant words, such as insanity and epilepsy, which hurt many persons like a knife-thrust, and cause them to shut up like a clam. One can learn much more by asking about relatives who gave up work early in life, who

couldn't earn a living, or who were difficult to live with, cranky, eccentric, no account, or for one reason or another a problem to their relatives.

Often I have been able to get a history of insanity in the family only by asking if anyone ever had a break *which was brought on by sorrow, strain, or misfortune*. People may admit the presence of insanity in the family if it is granted that it came because of unhappiness, a difficult menopause, or the strain of living with a hard-drinking husband; they will not admit it if it is going to be assumed that it was and is based on a hereditary taint!

Not infrequently some sensible member of the family will tell me what a crazy and eccentric lot most of the relatives are, after the patient and perhaps his or her mother maintained that they are all paragons of good sense and deportment.

I think it helpful in some cases of suspected cholecystitis to know that the patient has had several relatives who had to be operated on for gallstones. A similar history of several relatives with ulcer is, I believe, of significance when a man has epigastric pain.

For years I have been noting occasionally an association between bizarre syndromes in young women and the history of a toxic goiter in the mother, but only a statistical study would show if this association is present often enough to be significant.

IS THERE ANYTHING LEFT UNASKED-ABOUT AND UNSAID?

After a history appears to have been well taken, I often ask the patient if there is anything more that I haven't asked about but which he or she thinks I should know.

Sometimes, after the examination has been completed, and I have begun to wonder if the little pain or indigestion complained of could account for all of the woman's anxiety and the long journey she made to see me, I look her in the eye and ask if there is any other problem that is bothering her, and then the really important question comes out. Elsewhere in this book I point out how sadly I failed to help a woman one day when I forgot to do what I recommend here.

QUESTIONS DESIGNED JUST TO STUDY DISEASE

The young physician who would like some day to be an able consultant and teacher should often go on taking a history long after he has secured all the facts that are needed to make a diagnosis. If he is ever to understand certain diseases and to know them well in all their bizarre and atypical forms, if he is ever to know which symptoms go with a certain

disease and which do not, if he is ever going to know what he needs to know of human thinking and suffering and fearing, and if he is ever to do clinical research and thereby add to the world's knowledge of disease, he must spend much of his life drawing out the stories his patients have to tell him.

For instance, when a man comes in with a history of hunger pain and a couple of gastric hemorrhages, and some roentgenograms showing an ulcer, I do not have to take any more history in order to make a diagnosis. That is made. But if I have the time to spare and the man is intelligent, I like to quiz him for a while to see if I can get any light on the mechanism by which, let us say, each time he bled, the hemorrhage cleared away all his pain and distress. Or I may go on, trying to get some hint as to what causes his ulcer to flare up in the spring and the fall.

Almost everything I know about migraine I have learned by talking to patients for hours after the diagnosis in their case was obvious. I wanted to learn all I could about the life history of the disease, the temperamental peculiarities of the people who suffer with it, and the causes which bring on the attacks. Some of this information I could have gotten from books, but most of it I had to get from my patients.

Chapter III

IMPORTANCE OF UNCOVERING THE PATIENT'S FEAR OR HIS OR HER REAL REASON FOR CONSULTING A PHYSICIAN

"My flesh trembleth for fear."—Psalms 119:120.

"'Tis painful thinking that corrodes our clay."—ARMSTRONG.

"He who fears to suffer, suffers from fear."—French proverb.

"Some of my most regrettable errors have been the results of not spending sufficient time to find out the real cause of the patient's suffering. A case in point: I once treated a patient for twenty years without finding out the real trouble. Not until her husband became my patient did the real facts become clear—Tomcat."—ARTHUR E. HERTZLER, *The Horse and Buggy Doctor*.

"You may judge that my disease is not very grievous since I am more afraid of the medicine than the malady."—BENJAMIN FRANKLIN, Letter to John Jay.

"Two-thirds of help is to give courage."—Irish proverb.

"If it were not for hope the heart would break."—English proverb.

"Confession is as medicine to him who has gone astray."—Latin proverb.

IN MANY CASES THE CLINICIAN WILL WASTE HIS TIME AND LET THE PATIENT GO away dissatisfied if he does not quickly find out what fear it was that drove the person in to consult him. Ordinarily, one would think that when a patient has been scared half to death by the sudden death of a relative or by being told that he has coronary disease or cancer of the stomach he would begin his first interview with a new physician by telling of this fright. One would think he would say, "Quick, examine my heart (or stomach) and put me out of my misery of fear."

THE LACK OF FRANKNESS IN FRIGHTENED PATIENTS

But frightened men and women commonly do not behave in so frank and simple a way. Some seem reluctant to put their fear into words;

others, perhaps realizing that it is somewhat silly, are ashamed to mention it. Some refuse to tell of an alarming diagnosis just made because they fear that the new physician will let his judgment be influenced by the opinions of others, or that he will feel so bound by some supposed dictate of medical etiquette that he will not criticize the views of a colleague.

Hence it is that when a woman has been told that she has a tumor in her abdomen and she goes elsewhere for another opinion, she sometimes fails to mention what has happened. She wants to see if the new doctor can find the mass by himself without any prompting. If he does, then little doubt will remain in her mind as to its presence.

THE NEED FOR LEARNING OF A FEAR

What is unfortunate about this sort of behavior is that sometimes, when the consultant does not find any tumor, the patient goes on home, still filled with doubts and fears. If she had only confessed what was on her mind, the physician would, of course, have known how necessary it was to examine the affected region with special care; he would have known that he had to order roentgenologic studies, he would have remarked that he was doing everything necessary to rule out the presence of a tumor, and when the work was done and nothing was found, he would have pointed out to the patient how impossible it would be for her, with her negative findings and perhaps a long history, to have the cancer of the stomach that she so feared.

The only thing that saves me sometimes from failing to help such a patient is that I get a hunch that the anxiety exhibited is greater than the few mild symptoms should warrant. Then, perhaps, on questioning a relative, I find the real reason for the visit. Thus, one day I learned that a patient had traveled 2,000 miles to see me simply because a fortune teller had told her she was going to die of stomach trouble!

REASONS FOR A PATIENT'S CONCEALMENT OF HIS FEAR

Usually I like to find out at the first interview what the patient's gnawing fear is and *why it is so upsetting to him*, but sometimes I think it better to let this go until later, after most of the reports of the tests are in. I am thinking particularly of the problem of satisfying the type of Jewish patient who is so afraid of collusion between his physicians that he does not present the letter of findings that his home doctor wrote. When I ask if he was referred by anyone he may admit that he was, but he will ask if I mind examining him first and seeing the letter afterward. I usually accede

to this request because I want the man to be satisfied, but sometimes when I tell him that I can probably save him much time and expense if I am able to go right to work on the problem of confirming or disproving the presence of some one disease which he fears, he hands over the letter.

THE NEED FOR MAKING THE TESTS THAT WILL DRIVE OUT FEAR

If I am not given the necessary information I will waste time and money repeating tests that do not need to be repeated, and I may fail to make the one test that is essential for the driving out of the man's particular fear. To illustrate: If a woman comes with the story of typical migraine and nothing else, it will not occur to me to order a roentgenogram made of her head, but if I learn that someone at home scared her badly by suggesting that she might have a brain tumor, I must immediately get films of her head, I must get the oculist to look for a choked disk, and I must call a neurologic consultant. Ordinarily, when dealing with a patient with migraine I would never think of mentioning the possibility of the presence of a brain tumor, but in this case I must mention it, and I must go on talking about it until she is satisfied that she hasn't a sign of it.

THE ORIGIN OF CERTAIN FEARS

Sometimes I marvel at the chimeric nature of the fears that torture patients, and occasionally I am distressed to learn that a disabling neurosis was produced by some unguarded remark made by a fellow physician. I remember a man who traveled a long distance to see me about a few nosebleeds. When I could see that the bleeding had come from a crusted patch on one side of the septum, when I learned that he had never bled excessively from any wound, and when examination of his blood and its clotting mechanism showed no abnormality, I was about to dismiss him. Then, fortunately, it occurred to me to ask why he had traveled so far to inquire about so simple and harmless a matter. To my astonishment, he said that, on hearing of the nosebleeds, a hospital intern whom he met at a party remarked to him that he might have a blood dyscrasia and that he might later have to have his spleen removed. When he asked what would happen if he didn't have this done he was told he might some day have a hemorrhage in his brain! It was fortunate that I got this story, because I knew then that I must call in a hematologist so that any lingering doubts and fears that might still remain in the patient's mind could be authoritatively dispelled.

One day I saw a woman with curious spasmodic contractions of the

muscles of the face, neck, and back, which I thought were hysterical in nature. Following up this hunch and inquiring for causes of fear, I found that, months before, after she had scratched her hand on a nail, a physician had remarked that she might get lockjaw. After two weeks of agonizing worry, she developed the spasm. When I assured her that she couldn't go on having lockjaw for months, she promptly recovered.

THE NEED FOR FINDING WHY A FEAR IS SO TERRIFYING

As all good psychiatrists know, after one has uncovered and identified a fear it may be just as important to find out why it is so disturbing to the patient. Usually when questioned on this point the patient will say, "After watching my mother die slowly of cancer I have always had a horror of it," or "I watched my sister go blind with a brain tumor," or "I took care of my brother who had epilepsy." Or it may be learned that shortly before the patient decided to get examined, some relative or business associate shocked everyone by dropping dead or by finding that what he had was a cancer and not the benign ulcer that had been diagnosed somewhere.

FEARS THAT ARISE IN MISUNDERSTANDINGS

The worried patient sometimes gets badly frightened by a misinterpretation of something he has overheard. I remember a worrisome young man who, one day, came back from the roentgenoscopic room wringing his hands and trembling with fear. "It is all up with me," he said. "The x-ray man said I have a hopeless cancer of the stomach." Knowing that the roentgenologist would never have said such a thing, I asked, "Just what did he say?" and the answer was that on dismissing him, the roentgenologist said to an assistant, "N. P." In Mayo Clinic cipher this meant "no plates," and indicated that the roentgenologist was so satisfied with the normal appearance of the stomach on the roentgenoscopic screen that he did not see any sense in making films. But to the patient, watching in an agony of fear for some portent of disaster, it meant "nothing possible"; in other words, that the situation was hopeless! This shows how guarded the speech of the physician and his assistants must often be. During every minute in which he is being examined, the anxious patient is trying hard, as was this man, to read his fate in everything that is being said about him.

Devastating fears are often due to a wrong understanding of the implications of certain terms. Thus, I can remember in pre-insulin days seeing an elderly Jew who became terror-stricken and hysterical when I told him that there was a trace of sugar in his urine. To me it seemed a trifle, but to

him who had watched several relatives die in coma, it could mean only one thing and that was an early death. As O. W. Holmes once pointed out, we physicians must see to it that the patient gets the same idea out of a word or a phrase that we do. Too often what we mean and what he understands are two very different things.

Doubtless one of the great breeders of neuroses today is the practice we physicians are adopting of giving patients a transcript of their findings. Even if we take pains to remark in the report that the heart murmur or the little changes in the electrocardiogram, the ptosis, the hypertonicity of the colon, or the low basal metabolic rate have no significance, the patient may think otherwise. To him, especially if he is a worrier, these are all abnormalities which must be corrected. Accordingly, he starts right out looking for a physician who will agree with him, and will begin treating him strenuously.

FEARS ARISING IN THINGS READ

Another breeder of neuroses is the health column in the newspaper and the many articles on medicine in the monthly magazines. Often, of course, the fear so engendered is justified, and a life is saved by prompt attention to some danger signal, but often again, the fear is unjustified. Sometimes also a neurosis arises in that great fear that many persons have of becoming infected with those germs of disease which they sense are all about them. Thus, a young woman once traveled several hundred miles to consult me, ostensibly about a vague indigestion. Fortunately, when nothing wrong showed up on the first examinations, I thought to ask her what she *really* had come to talk to me about. Then she told me that on discovering that her roommate was having sexual adventures, she had gotten it into her head that the girl probably had gonorrhea and might have passed it on to her by way of the toilet seat. She had gone to several physicians to see if this was true, but to none of them had she been able to stammer out her fears. She couldn't bring herself to face possible distrust of her story and perhaps a jibe at her use of the old toilet-seat gag.

THE PHYSICIAN MUST SUSPECT THE PRESENCE OF A FEAR OR A PROBLEM

As I have already intimated, in many cases the physician will not get this type of really important story unless he first suspects that there is one to get, and then keeps asking for it. Sometimes it will be the appearance of the patient or the way he or she acts during interviews that will

suggest the need for asking about adjustments to life and particularly about sexual matters.

Always, when the patient appears to be psychopathic, or when he or she is obviously depressed and discouraged, with complaints of great exhaustion, I feel the need for going into the problems of adjustment to living, much as a psychiatrist would do. Many a time when I have asked such a patient if he ever thought of suicide he has answered, "Why yes, it is a frequently recurring temptation, and I am afraid some day I will yield to it." Naturally, as his physician, I should know this if only because any one who is spending much of his energies debating whether or not to jump out of the window ought to be tired at the end of the day.

Another way in which a patient often tips me off to the presence of a worry is by asking some question. I remember a remarkable story I once got from a woman just because, at the close of the first interview, she asked if, with her overhauling, she would get a Wassermann test. I said to myself, "Ha, this nice-looking woman with a little indigestion has either been in mischief, or else she suspects her husband of having been." After insisting for ten days that she tell me what was preying on her mind, I finally got her to confess that she had discovered that her husband was a bigamist, and that worry over this and the threats of blackmail made by the other wife was the cause of her illness. As I suspected, with the loss of faith in her husband, there came the fear that he might be having other sexual adventures and perhaps through these might have contracted a venereal disease and passed it on to her.

WHY PHYSICIANS SOMETIMES FAIL TO HELP WORRIED PATIENTS

Although I always try to keep in mind the possibility that the patient with a functional trouble may have a tragic story to tell, and although I often try to draw it out, I know that often I must fail to get it and by so failing I must fail to be as helpful as I would like to be. In one case, I learned months after her last visit to me that I had failed to sense a woman's need, and as a result had been of no service to her. What happened was that on two occasions, a stout, unattractive, middle-aged farmer's widow came to the clinic with such a vague story of indigestion and abdominal pain that I had to study her carefully before I dared say there was no organic disease present. Because it did not occur to me that an uninteresting woman of her type and age could have sexual problems, I did not ask about such matters. Both times she went home apparently satisfied, but months later she wrote to say that she had gotten nothing out

of her trips to Rochester because on neither occasion had she been able to bring herself to tell me what was really on her mind. What had happened was that the death of her husband had left her with a sexual hunger that tortured her day and night. A friend suggested that the removal of the clitoris might help, but each time she came to have the operation done she was too bashful to come out with what was on her mind.

THE PERSON WHO IS TRYING TO PUNISH SOMEONE

Occasionally I see a woman whose troubles all seem to be due to the fact that she is trying to get even with someone she doesn't like or who she feels has injured her. Perhaps the commonest example of this is the woman who gets a lot of pelvic troubles when she discovers that her husband has been unfaithful to her. Another example is that of the woman who gets a bad operative result in order to injure her surgeon whom she has come to dislike. I remember a woman who developed a typical hysterical paralysis of the hand and wrist after manipulation of a shoulder joint. What happened was that she took a violent dislike to the surgeon because of something he did, and she decided she would show everyone in town what a mess he had made of her arm. Unfortunately, she overdid the job, and as a result I fear she will be crippled for the rest of her days.

PERSONS TORTURED BY CONSCIENCE

One reason why some persons are so upset by the death of a husband, wife, child, or parent is that they are torn by feelings of guilt. Perhaps they were unkind to the person shortly before he or she died, or they feel that if they had done things differently the death could have been avoided. I describe this type of patient elsewhere in this book.

ARTHRITIC PATIENTS

Many of the patients I see with arthritic or fibrositic pains are concerned not so much over their pain as with the fear that they will soon become crippled. Usually such a person is straightened out when he is assured that he hasn't the deforming type of arthritis and that he is not likely ever to get into a wheel chair. Many of the patients have only a mild fibrositis or periarthritis. With a fairly harmless fibrositis the blood sedimentation rate is usually low.

THE WOMAN WHO WANTS A VACATION FROM HER HUSBAND

I remember a woman who used to come to the clinic once or twice a year complaining always of vague symptoms. Nothing wrong was ever found on examination, but each time she came she hung around the diet kitchen for six weeks. Finally she admitted that she was bored to death with an unloved husband, and the best way she knew of getting away from him for a while was to fall ill and go to some medical center for treatment. I have seen other women who, more or less unconsciously, were playing the same game. The unfortunate feature about them is that they will sometimes overdo the thing and get themselves operated on to little purpose. Perhaps it makes their conscience feel better.

Chapter IV

WHAT CAN BE LEARNED FROM THE WAY IN WHICH THE PATIENT TELLS THE HISTORY

"One has never so much need of his wit as when he has to deal with a fool."—Chinese proverb.

"Wise women choose their doctors and trust them . . . The terrible patients are nervous women with long memories, who question much where answers are difficult, and who put together one's answers from time to time and torment themselves and the physician with the apparent inconsistencies they detect."—S. WEIR MITCHELL, Doctor and Patient, p. 49.

Sensitive psychoneurotics "feel a distressing emptiness in their lives and grope, often frantically, for fundamental certainties and specific values which will give significance and meaning to life."—G. P. COON, A Review of the Psychoneuroses at Stockbridge.

"If health and a fair day smile upon me, I am a very honest and good natured man, but if a corn trouble my toe, I am sullen, out of humor, and not to be seen."—MICHEL DE MONTAIGNE.

"Against a woman's chatter take at night, fasting, a root of radish; that day the chatter cannot harm thee."—Anglo-Saxon Ms., 950 A.D.

PATIENTS WITH FUNCTIONAL TROUBLES AND NEUROSES COMMONLY GIVE THEM-selves away the minute they begin to tell their story. Many are not sure what their principal trouble is, and many, if left to themselves, would talk for hours without painting any clear picture of what is wrong. Usually persons with organic disease are much clearer about what is wrong, and often they can tell the story of their sufferings within a few minutes.

The woman with a neurosis usually has no conception of what is important and what unimportant in her story; so she mixes the two inextricably. She has no idea either of arranging the many episodes in her long illness in any chronologic order. She often brings a notebook full of reminders, but still she gets her story all mixed up.

Often she gives herself away by complaining too much about little discomforts which most sensible persons ignore or bear with equanimity. Instead of explaining why she considers herself so terribly ill, she rambles on about floating specks before her eyes, twitching of the eyelids, brown spots on her skin, little sweat blisters on her fingers, a coated tongue, a bad taste in her mouth, a slight sallowness, large knuckles, or a little swelling of her ankles on a warm day.

THE HISTORY THAT IS HARD TO GET

Of large diagnostic import is the statement, sometimes found at the end of a history taken by an assistant, to the effect that he found it impossible to get a clearcut story out of the patient. That this wasn't his fault is discovered by the Chief as soon as he tries his hand at the job. These persons have a baffling, time-wasting, and exasperating way of replying to each question with an answer which is irrelevant. They act like a deaf man guessing at what was asked. Let us say that a woman has been asked if she has any pain, and her answer is that Dr. Smith once put her on a soft diet; when asked when the pain came, her answer is, "Dr. Brown gave me a pink medicine," or "I sometimes have diarrhea." I do not know why these people do this, but I suspect it is due to a lack of attention or to a mental confusion which causes them to fail to hear. Perhaps it is due to a self-centering which causes them to pay no attention to what others say. Sometimes it is due to a low intelligence quotient, but then, again, I remember an assistant professor of psychology who showed this type of reaction to history-taking in a marked form. I asked him why he answered as he did but he couldn't tell me. Ross once wrote that persons who answer in this way are mildly insane, and I am sure he was right about some of them.

Perhaps it is partly because of this curiously tangled and illogical type of thinking that many of these persons feel worn out and unhappy. Because of it many of them mess up their marriage and their life, and get themselves into the miserable state in which the physician finds them. Probably one reason why these persons often come with a written list of their complaints is that they know that their memory is poor and their mental processes are illogical and unreliable. Realizing that they do not know what is worth talking about and what isn't, they decide to tell about everything. Others think that while at the doctor's they had better complain of everything that ever bothered them.

In extenuation of their behavior one must admit that the layman can-

not be expected to know what in his history is important and what isn't. The clinician himself is often puzzled on this point and sometimes makes serious mistakes because he cannot tell what is significant. Furthermore, it is not easy for anyone at the first attempt to give a good account of the episodes of illness which came one after the other during the course of several years. On thinking things over, and especially after talking to relatives, details may come back from oblivion, and with retelling, the account will usually have to be changed somewhat. But in the cases I have been talking about, the difficulty is more fundamental than that. These persons tell a somewhat different story every time they are questioned.

Sometimes a woman will deceive herself and will remember phases of her illness more as she thinks they should have been than as they were. Perhaps she dramatizes them a bit. Thus, let us say that at one time she consulted a quack whose personality and supposed skill impressed her greatly; her memory will have it that under his care all her troubles cleared up, but her husband will not be able to recall any such improvement.

REASONS FOR PATIENT'S LYING

In many cases a woman will lie like a trooper, but I suspect she does this from a feeling that the end will justify the means. Often she just hates to admit certain things. Sometimes this is because of reticence or shame, but often it is because she is so anxious to divert the physician from some diagnosis or other that she does not approve of and does not ever want made again. Thus, the woman who has been told repeatedly that her troubles are functional in nature commonly refuses to believe it; she maintains that there is something radically wrong with her, and she is not going to be satisfied until it is found. After she has watched several physicians recognize instantly the neurotic nature of her symptoms, she naturally refuses to tip off the next one by telling him that, let us say, she once had a hysterical aphonia, once was depressed and attempted suicide, or recently went through the strain of being divorced. She wants her new doctor to go at her problem with only one idea in mind and that is of finding organic disease. Perhaps she feels justified in concealing certain facts also because she is so sure that in her case they have no significance.

THE TEMPTATION TO MAKE UP A STORY

In some cases, as when a married woman comes with the story of indigestion and aches and pains when really what she wants is to find out if

an errant husband has given her a venereal disease, or when a girl comes with insomnia, headache, and abdominal distress and does not want to admit, even to herself, that it is all because her fiancé is going out with another girl, or when a woman who has only a few aches and minor troubles wants to get the doctor deeply interested and concerned over her illness, she will be tempted to make up a good story as she goes along. Under such circumstances it is not surprising that she often fails to describe any recognizable syndrome, or that under cross-examination she forgets and tells a different tale.

Naturally, the wise and experienced physician will learn much from the way in which a woman tells her story, and often from this behavior alone he will be sure that whatever else she may have, at least she has a psycho-neurosis, or she is the sort of person who cannot be expected to carry out any treatment or be helped by any type of therapy.

The physician must have much patience and courtesy in his makeup if he is to avoid becoming impatient, angry, or perhaps even abusive as he tries to get a history out of a woman of this type. I have sat in on consultations when I am sorry to say the air in the room became tense as a colleague became exasperated over his inability to get pertinent answers to his questions. This was unfortunate, because, as was to be expected, his impatience and ill-concealed disgust served to fluster the patient and make her answers even more erratic.

Chapter V

HELPS IN SIZING UP THE PATIENT

"You will remember, of course, always to get the weather-gage of your patient, I mean, to place him so that the light falls on his face and not on yours. It is a kind of ocular duel that is about to take place between you; you are going to look through his features into his pulmonary and hepatic and other internal machinery, and he is going to look into yours quite as sharply to see what you think about his probabilities for time and eternity."—O. W. HOLMES.

"The people who, from any cause, simulate disease are, I think, apt to be naturally distinguished by certain peculiarities. They are generally oversensitive, pain hurts them more than others, and is a more important matter in life. Perhaps they really feel pain more, and, at all events, they complain of it more. As a rule, they are timid, fearful and watchful, nursing for evil any chance word inadvertently dropped, and therefore prone to dwell on physicians' opinions, to deduce exaggerated possibilities of trouble, and in obedience to the least prediction of ill to consent or hasten to take extreme precautions."—S. WEIR MITCHELL, Diseases of the Nervous System.

"The very sight of another's pain does materially work upon me, and I naturally usurp the sense of a third person to share with him in his torment. A perpetual cough in another tickles my lungs and throat. I take possession of the disease I am concerned at and lay it too much to heart."—MICHEL DE MONTAIGNE.

"And it is a strange thing how fancy works for I no sooner handled Mrs. Batten's rabbit's foot, but I became very well, and so continue."—Pepys' Diary.

IN SOME CASES ONE OF THE MOST IMPORTANT THINGS THE PHYSICIAN CAN DO is to size up the patient and make a guess as to the probability that he is complaining too much or too little. Sometimes it will be fairly obvious that he is not one inclined to complain, and then when he says he has pain it probably *is* pain, and severe pain at that. But if he seems inclined to complain much about many little things his so-called pains are likely to be discomforts, and most of what he says will have to be discounted a bit. Every experienced clinician, as he listens to his patients, is unconsciously getting important impressions of this type. He must get them and

they must be fairly accurate if he is to avoid making mistakes in diagnosis. The following suggestions are for the young physician who is trying to learn more of this art of sizing up the patient and estimating the seriousness of his discomforts.

There would be no need for learning this art if every patient who came into the consulting room were to say, either, "Let me tip you off first to the fact that I am an unemotional, insensitive, unimaginative, non-worrying sort of man who never was ill in my life," or, "I am an overly emotional and hypersensitive sort of person, a pathologic worrier with a terrible fear of disease, and so great a suggestibility that anything you say, even while attempting to cheer me, will probably produce in me more fears and more symptoms than I had before." But patients do not do this. I can remember only one woman who, on coming into the office, said, "Well, you might as well know it now as later: I am a 'neuro' of the first water." I was so delighted with her honesty that I nearly hugged her on the spot!

SENSITIVENESS OF THE PATIENT

Often in trying to estimate the severity of a pain I like to learn what I can of the sensitiveness of the patient. I might make fewer diagnostic mistakes if I only had some simple test for sensitiveness which would tell me in one case to tone down and minimize most of what a woman had told me of her pains, and in another case to multiply what little complaint I was able to draw out.

Sometimes I get help by asking a woman if the dentist hurts her much. If she says she goes to pieces the minute she feels the drill I know I am dealing with one type of patient, while if a man says he goes to sleep in the chair I know I am dealing with another type. Let us suppose now that each one of these two persons has a duodenal ulcer; the woman will probably have stormy symptoms while the man will not know he is ill until he has a hemorrhage or a perforation.

Another way in which I get an idea as to how much credence to put in a patient's complaint of pain is by noting what he or she complains of. When a man who says he has a "severe pain" in his stomach goes on to complain about a few little blisters on his fingers, a brown spot on his face, spots before his eyes, mucus in his stools, a little sallowness, a small varicose vein, and a wen on his neck, I begin to wonder if his "pain" is really as bad as he says it is. He probably is only a perfectionist who wants everything about his body to be just so.

As I point out in the chapter on observing the patient, much helpful information as to a woman's sensitiveness or insensitiveness can be obtained by watching the way in which she reacts to the discomforts of a proctoscopic examination, a barium enema, or the passage of a stomach tube. If she "has a fit" over every such procedure she is either overly sensitive or overly inclined to complain. I often pick out the hypersensitive woman simply by pinching a fold of skin with the underlying fat and noting that she flinches too much.

Hardy and his associates who, in 1940, measured the sensitiveness of the skin of the forehead to radiation from a lamp, found that all the persons studied had about the same threshold for pain. Slaughter, who modified the apparatus somewhat, is finding differences in individuals. A friend of mine who is completely insensitive to the Libman test of pressing on the styloid process below the ear and can go to sleep while his dentist is drilling into his teeth could not feel any pain when tested with the Slaughter apparatus. Wilder, who used a rough metal body pressed into the skin of the arm with the help of a blood pressure cuff, found marked individual differences in sensitiveness. Libman also found marked differences in individuals. The reason for the differences between the findings of Hardy and others probably is that the methods used measure different sensations or combinations of sensations.

It is hard for me to accept Hardy's statement that the threshold for pain is the same in most persons. If it is, then the big differences that we physicians observe every day in the reactions of patients to discomfort must be due to differences in the way in which they tolerate or put up with the pain they feel. Some individuals must be indifferent to pain, or else they ignore it, perhaps because they are stoical or not worried as to what the sensation may signify or lead to. Persons who spend much money trying to learn the cause of every small discomfort usually do so because they are so worried as to what "the thing may turn into." I often think, when I get a knifelike jab of pain in the region of my heart, how alarmed I might easily be and how quickly I might go running to a cardiologist if I didn't know that I had had a harmless neuralgia.

SENSITIVENESS OF THE DIGESTIVE TRACT

By asking a few questions I often can learn that a patient's digestive tract is too irritable, its reflexes too active, and its hook-up with the brain too close. Cramping of the stomach or bowel immediately after the person drinks a glass of water or takes an enema is a sure sign of increased

intestinal irritability. Another sign is a feeling of fullness immediately after taking food, together, perhaps, with jitteriness, a sense of warmth, sweating, or a feeling of nausea such as is observed in the so-called dumping stomach which pours food too rapidly into the bowel.

Some persons with a hypersensitive bowel have an evacuation, and perhaps a loose one, immediately after each meal. This is particularly likely to happen when they have gone without food for many hours. Some have so sensitive a pharynx that they cannot brush their back teeth without gagging, and, as one might expect, such persons usually cannot wear an upper plate. Some highly sensitive women become nauseated or vomit or get cramps or backache if they take an enema or insert a rectal suppository. An occasional woman will get nauseated when a little blood is taken from her arm. Others will get a violent and prolonged attack of diarrhea after taking even a small dose of some laxative. Some women with pruritus ani get to belching when they scratch the itchy area. Some start belching also if the abdomen or back is massaged, and some feel pain in the abdomen when any part of the body is massaged. Some vomit with any strong mental stimulus such as disgust, pain, fear, or even delight; others, when shocked in any way, feel a sudden sinking of the abdomen or something twisting or hitting the stomach; some feel a stab of constricting pain about the lower ribs in front; others "feel sick all over," and others get diarrhea, or start belching or bloating. Some when excited or thrilled or anxious lose all appetite; they have trouble swallowing, digestion stops, and perhaps the colon secretes an irritating fluid with some mucus and gas. If a patient has always vomited easily or has gotten diarrhea easily, I want to know it because these facts will influence me as I try to make a diagnosis.

An overly sensitive bowel will sometimes react badly to roughage in the diet, and sometimes it will react allergically to one or more foods. In some sensitive persons the stimulus of cold food striking the stomach or of cold air striking the skin will upset the functions of the bowel. I know a woman who vomits if, on leaving the house in winter, she feels chilled. Some persons get to vomiting if they cough or belch for any length of time. Many get a distress in the pit of the stomach on starting down in an elevator. Many get a headache if they go without a meal and especially without coffee, and they get relief as soon as they eat. Curiously, some persons get an exaggeration of their digestive discomforts when a storm is approaching; they behave as some arthritics do.

I do not know what is the significance of a marked tendency to car-

sickness or seasickness. The fact that a person with a highly sensitive nervous system and bowel can be immune to seasickness while his husky brother with an iron stomach and no nerves is paralyzed as soon as the boat leaves the dock suggests that the difference between the two men is not in the digestive tract but in the brain or in the balancing mechanism in the inner ear. I have reason to believe that a tendency to carsickness and seasickness is inherited.

Obviously, if a patient has an overly irritable digestive tract the physician should know it, because commonly the exaggerated responses of the gut to all nervous and other stimuli are responsible for the symptoms complained of.

DEGREE OF TENSENESS OF THE PATIENT

One day I was much helped in understanding the problem of a man with a severe migraine when he admitted that he couldn't play any game because he always made work out of it. Occasionally I see a man who is so tense that he stands or paces up and down in my office. A tense, migrainous stenographer will say that she is the fastest typist in her office, and the one who is always straining every nerve to finish her job quickly. Some of these persons say they are jittery and that at times they would like to scream or to "jump out of their skin." They bite their nails or pick at the skin of their fingers. Their voice at times becomes shrill.

GAUGING THE SENSITIVENESS OF THE AUTONOMIC NERVES

Just as important as recognizing hypersensitivity in the field of the somatic nerves is the recognition of exaggerated reactions in the fields of the sympathetic and parasympathetic nerves. To illustrate: A woman who for a long time had been treated without avail for supposed brucellosis, appeared to me to have a simple hyperthermia. When I discussed this possibility with her, she remarked that my theory was probably correct because usually her temperature was normal, but whenever she got excited it tended to rise spectacularly. On one occasion, when a relative was very ill, it rose to 102° F.

Common signs of an exaggerated reaction of the autonomic nerves to emotion are blushing, the spreading of red splotches on the neck (in rufous women), a speeding pulse, excessive sweating of the palms of the hands or of the whole body, trembling, frequent urination, perhaps with the passage of large amounts of watery urine, palpitation of the heart, fainting easily, sinking spells or weak spells, chilliness and waves of goose-

flesh, dermographia, diarrhea, sudden bloating, and mucous colics.

Some women will show how reactive their bodily functions are to nervous influences by telling how any excitement can start or stop menstruation. An anxious woman of this type, on traveling some distance to see a consultant, may start menstruating, in spite of the fact that she is not due for ten days or more. Rarely, a woman will tell of having stopped menstruating for months or even permanently after a psychic shock.

Quite a few nervous women are troubled by an excess of vaginal secretion when they become nervous. In them the glands in the cervix of the uterus secrete excessively under emotion much as their sweat glands do. In such cases microscopic examination of the vaginal secretion will show that it is mucoid in nature and without a pus cell. Naturally, there isn't much one can do for these women in the way of treating the leucorrhea.

THE PATIENT'S SUGGESTIBILITY

In many cases the most useful thing a physician can do is to find out how susceptible the patient is to suggestion. I have known women so suggestible that they got air-hunger when they thought there were so many persons in a room that the oxygen must be exhausted. Elsewhere in this book I describe the case of a woman who thought she had a cancer of the colon and was reeking with a fecal odor simply because her roommate had an artificial anus. I describe also the sudden illness that seized a man as he read in the morning paper the description of someone's death from edema of the glottis.

Often one can be fairly certain from the stories a woman tells of the severe symptoms she gets after taking $1/400$ grain of atropine or a grain of aspirin that she is highly suggestible and inclined to embroider the tale of anything that has happened to her. The more unusual and vivid and artistic the personality, the more I suspect that there may be some dramatization of the story.

THE PATIENT'S SUSCEPTIBILITY TO EMOTION

I often wish I knew how emotional the patient before me is, and sometimes much helpful information on this point can be obtained as the history is being taken. I remember a stout, merry Jewess who, on several occasions, had such severe abdominal colics that she nearly got operated on. The only thing that stayed the surgeon's hand was the knowledge that her gallbladder functioned perfectly with the dye. Finally, one day

I asked her if she was overly emotional or sympathetic. "Yes," she said, "to show you how I react to the troubles of members of my family, I need only say that in 1929 when my brother lost all his money, I cried for three weeks!" Then she confessed that each one of her colics had followed an emotional debauch brought on by some minor tragedy in the family.

Another woman of this type confessed that she could get a vomiting spell just from reading that several thousand Chinese had been drowned in a flood! She had trouble at the theater where anything sad caused her to weep copiously. She would vomit when she heard good news or when she was overjoyed by the return of her children from college. Any strong emotion would stop her digestion and cause her to perspire much and to urinate every hour. The reading of any stirring or sad passage in a book would make her choke up or weep. The thought of going on a journey or giving a talk before her club always gave her diarrhea.

THE PATIENT'S EXCITABILITY AND IRASCIBILITY

It can be very helpful to learn that the pleasant-appearing person to whom one is talking has a violent and uncontrollable temper, and that much of his energy every day is spent either in "snapping people's heads off" or in trying to keep from doing so. Not infrequently, and especially when dealing with a migrainous woman, it is highly important to know that her husband has a horrible temper or great excitability. A Jewish patient will often admit that most of his or her attacks of abdominal pain have followed a blow-up over an "aggravation."

THE PATIENT'S TENDENCY TO WORRY

It is often highly important to find out how badly a patient worries. Some persons worry too much over things that *might* happen while others who haven't anything to worry about are constantly conjuring up silly fears or are worrying about other people. If a woman cannot be bantered into telling of her misdeeds along this line, the relative with her will sometimes give her away. One of my patients admitted that when her pain left her she worried herself sick wondering why it had gone, where it had gone, and when it would come back! Another woman worried because her husband wouldn't worry! A man once told me what I needed most to know about him when he said that whenever a little seborrheic patch on his face became itchy he was sure it was turning into a cancer, and with this, waves of fear ran all over him and "shot him all to pieces."

Particularly instructive is the statement sometimes made by a patient that he has always had a great dread of getting cancer or heart disease. Tragic always is the story of the worrisome man who, having had syphilis in his youth, was finally told that he was cured; then married, had children, and spent the rest of his days having spasms of fear every time some little illness came to him, his wife, or his youngsters. In some persons worry is so pathologic, silly, overpowering and shameless that I believe it is a form of insanity.

RECOGNIZING THE FUSSBUDGET AND THE PERFECTIONIST

The most important point that can be brought out in the history of many a woman with a digestive neurosis is that she is a fussbudget who never rests or lets anyone around her rest. Many of these women are perfectionists whose house must be kept as clean as an operating room. Some have a pathologic fear of dirt and bacteria, and are constantly washing their hands. Many want their body to be just so, and rush to the physician to tell him of every little symptom and to show him every little bump or spot. They are so determined that their health be kept in perfect condition that they sometimes talk surgeons into performing operations the necessity for which is very doubtful.

RECOGNIZING THE WOMAN WHO KEEPS GOING ON HER NERVES

One of the best ways of determining the nervous status of a woman is to tell her that what she needs is a couple of months' rest in bed. Usually she snaps back, "I couldn't stay in bed; I would go crazy if you put me to bed. I can't stay in bed a minute after 7:00 in the morning." Such a woman obviously is too tense, and usually she is living on her nerves. As some doctors say, she is running the car on the battery, and she sadly needs a rest.

GAUGING THE PATIENT'S INTELLIGENCE

I always want to know if the patient is intelligent enough so that I can get him to see how important his psychic and other problems are in producing his disease. I want to know if he will be able to co-operate with me when we come to the treatment of the disease, or if he will be too stupid to help himself and me. If he is stupid and has no insight into his problem the prognosis is often hopeless. Curiously, the fact that the patient is a university graduate or even a doctor of philosophy does not always mean that he has the type of intelligence that will enable him to

co-operate well. As we all know, some of the most difficult persons we physicians have to handle are school teachers and the wives of university professors! Dr. R. B. McGraw has pointed out that some of the chronic complainers who go from one free clinic to another are really morons with a mental age between seven and eight years. This explains much about them and their inability to answer questions logically.

GAUGING THE PATIENT'S WILL-POWER AND SELF-CONTROL

Since success or failure in the treatment of many diseases, and particularly the psychoneuroses, depends largely on the ability of the patient to set out on a course of self-education, and then to stick to it, I like to get some idea as to whether he or she has any will-power. Often as I listen to the history, I gain the impression that the patient is of the type who *wishes he wanted* to make the effort to get well. He wants an easy way out, with the druggist or the surgeon doing all the work. The person who goes on smoking or drinking or eating too much when he knows that this behavior is undermining his health and inviting disaster, obviously hasn't much sense or self-control.

GAUGING THE PATIENT'S STATE OF HEALTH BEFORE THE PRESENT ILLNESS STARTED

In many puzzling cases where the symptoms point to a neurosis, I often keep hunting for an organic disease largely because before the illness came, the patient was so healthy and so uncomplaining. I made sure of this by questioning the family or business associates. Obviously, the sudden change to ill health does not rule out the presence of a neurosis because occasionally one can see a previously healthy person quickly turned into a wreck by some psychic strain. Similarly, many a scrawny little constitutionally inadequate woman is attacked by cancer or some other serious disease. But it is a good rule to study with particular care every person who suddenly falls ill after a lifetime of good health.

I call to mind the case of an Italian miner who, before I saw him, had been turned away from several medical institutions with the diagnosis of a compensation neurosis. The story was that a year before, while working in a mine, he had slipped and gone down a chute with a few tons of rock. After that he was unable to do any work because of pain in his back. Because he was a cheerful, husky man and his boss said that he had always been a willing worker who never took a day off, I maintained that he must have some injury to the spine that the many anterior-

posterior and lateral roentgenograms made had not shown. Actually, when I had a three-quarters film made, it was easy to see that a piece of an articulating facet was broken off, and when this was removed the man was well.

In another case I went to bat to help a man when his sickness insurance was cut off by adjustors who maintained that he was malingering. I did this because I was sure that some severe illness must have hit the man to change him from one of the city's most wide-awake, public spirited, and prosperous citizens to an invalid who could hardly read a newspaper. Actually, when I went carefully into the story of the beginning of the trouble it became obvious that the man had had an attack of encephalitis.

Another reason for finding out if a patient was ever an efficient, useful, and honored member of the community is that if he was once, he may be again, and his health is worth fighting for. With good treatment he may get well. If, however, he never was worth much, I cannot hope ever to make much out of him, no matter how much disease I find and remove.

GAUGING THE PATIENT'S SANITY

In many cases it is important to know how psychopathic or nearly insane a patient is. I am sure the average internist has no idea of the number of mildly insane persons who go through his office each month. He should be able to recognize immediately the person with a sharp psychopathic facies or a reserved, uncommunicative, schizoid personality, and he ought often to be able to detect signs of poor adjustment to life. The trouble is that many insane persons can be pleasant when they want to be, and hence the physician is often deceived. Sometimes, after getting a "hunch" and asking a few questions, I find as I suspected that the patient has lost interest in and a feeling of emotional contact with the people about him. A young woman will say that a year before she used to go to the movies at least twice a week and now she never goes. Why? Because she cannot get interested in the doings of those people up there on the screen. They mean nothing to her. Even her mother, her baby, or her husband now means nothing to her, and this perhaps distresses her; she feels so terribly alone in the world. And I would never have learned of all this if I had not thought to ask.

Often in trying to find out the sort of nervous inheritance a patient has, I start questioning him about his youth. It may help to know that he wet the bed late because this suggests a neurotic ancestry. Was he a

problem child? Was he happy and social at school or did he have trouble with the teachers and his schoolmates? Did he play normally with the other boys, and did he have many friends, or was he solitary and shy and inclined to go off for long walks by himself? After puberty did he go with girls and enjoy their company or was he uncomfortable with girls and full of feelings of inferiority?

Was he happy at home or did he get on poorly with his parents and relatives? Did he feel discriminated against, neglected, and unloved? Did he ever have a breakdown of any kind and have to leave school or college? If so, what seemed to bring the trouble on? Did he worry greatly about sex and masturbation? Did he ever think of suicide? If so, why? Did he *want* to end his life or was he just afraid he might? The man most likely to commit suicide is the one who is badly depressed and full of feelings of guilt and unworthiness. Many physicians fear to ask a patient about suicide, but they shouldn't. If the doctor will discuss the subject dispassionately, the patient will also.

Is the patient overly religious and scrupulous? Does he enjoy life? Did he ever have unconscious spells or a convulsion? Does he have horrible nightmares? If so, what are they about? Has he succeeded in business? If not, why? Is he unable to stick to any one thing for long? How many jobs has he had in the last five years? Has he had trouble making decisions? Has he a good sense of humor? Does he like to be alone? Does he ever invite friends to his house? Is he inclined to hold grudges?

Is he sometimes overly elated and active, and later dull and depressed and discouraged? This would suggest a manic-depressive type of make-up. Has he ever had hallucinations of any kind? Do people have it in for him? Does he think many talk about him? Paranoid persons are suspicious of others. Is his memory failing? Has he a violent temper, and is he irritable or excitable or at times uncontrolled? Sometimes such persons have an equivalent of epilepsy. Did he ever drink heavily?

Have his relations with women been happy? Has he ever loved anyone deeply? If he did not marry, why didn't he? If he married, was the union a happy one? Does he at times feel unreal or unrelated to or detached from the world about him? Is he afraid to get into an elevator or a Pullman berth or any other small space (claustrophobia)? One can often pick out the woman with a tendency to claustrophobia or panicky feelings by asking if when in church she insists on sitting in the last pew near the door. She wants always to be near an exit.

Is a man afraid to go about alone? Does he have to count pickets

or steps or go back several times to see if the door is locked or the gas out (compulsions)?

Does he realize that some of his thinking has been muddled? Has his personality changed of late, and has he lost interest in work and life? Does he fear insanity or anything else? Is he slow to get up and get awake in the morning, and does he feel best in the late afternoon and evening? Many neurotic persons are like that. Is he intolerant of routine and regular habits of living and working, and would he like to be a vagabond without responsibilities?

Characteristic of many psychopathic persons is their lack of real liking for others about them; they are critical of others; some take offense when none was meant; some, although socially attractive when they want to be, are hard to get along with. They are usually sure of the correctness of their views about everything; they do not tolerate any fault-finding, and they never admit a fault or express regret for having hurt others. Many are too self-centered ever to love anyone deeply or properly or continuously. They will not put themselves out for others, and yet some of them crave a love that they will not or cannot earn or keep.

Psychopathic persons are often exceedingly poor sleepers who take huge doses of barbiturates and then react poorly to them. They are sometimes painfully restless and jittery, and this restlessness, plus apathy and a loss of their interests, is often a sign of beginning insanity.

I always avoid treating and especially sending in for operation any woman who speaks bitterly and contemptuously about other physicians whom she has seen. She will almost certainly be speaking just as bitterly about me some day.

RECOGNIZING THE PERSON WITH A NERVOUS BREAKDOWN

I often discover that a man is in a nervous breakdown by asking if he is working. I may then be surprised to find that for months or years he has been unable to do anything remunerative. I ask him what would happen if he were to try to go back to work. Would he get jittery or break out into a sweat or get weak all over? Perhaps he has tried to return to work and has found he couldn't stand the strain. I find it particularly helpful to ask if the man can *read* as he used to love to do, or if now his eyes and his brain tire quickly. He may no longer feel interest in reading, or his attention flags, or he cannot remember what he has just read. I next want to know if he can sit through a movie.

Many persons with a nervous breakdown soon get jittery or tense and have to leave. Has the man lost his *drive*, his *emotional control*, some of his *memory*, or his *ability to make decisions*? Have there been any marked changes in his *character*? Is he *jittery, weepy, irritable, or unable to sleep?* Is he *depressed* and thinking of suicide?

An essential point often is that *the man's disability is out of all proportion to the amount of abdominal or other distress that he has.* As I often say to a man, "Even if you had the ulcer or cholecystitis or appendicitis that your home physicians have suspected that you have, no one of these diseases could possibly account for the nervous breakdown which you have."

Other questions to be asked of patients with a nervous breakdown are to be found in the chapter on this subject.

A WRONG REACTION TO SEDATIVE DRUGS

Very helpful often in recognizing a person with a tense, tired-out, or psychopathic nervous system is the finding that he or she reacts wrongly to the commonly used soporific drugs. Usually a woman in a mild agitated depression will say that she can take several tablets of strong sleeping medicine at one time without getting any sedative effect. Worse yet, the drug may work wrongly in that it will excite her and make her feel so queer that she is afraid to drop off to sleep. In such people morphine also will have a bad, uncomfortable, or exciting effect. These bad reactions to drugs are pathognomonic.

RECOGNIZING THE DYSPEPTIC

I believe the old term "dyspeptic," although not often justifiable in the light of our modern knowledge about pepsin, can still be used to describe a certain type of thin person who, all his life, is afraid of food, finicky about it, prejudiced against many dishes, and subject to a certain amount of indigestion. I have discussed the troubles of these persons elsewhere in this book.

Often one can recognize such a person by looking at him, or by talking to him for a few minutes. Unlike the well-informed allergic person who complains about individual foods and who knows that he must not eat them in any form, no matter how well disguised, the dyspeptic tends to group foods into classifications which mean much to him but do not sound logical to a trained dietitian or allergist. Thus he will say that he cannot touch any acid or any raw food or any food containing roughage.

Similarly, he will probably state that he must avoid all greasy food, all pastries, all rich foods, and all desserts.

The allergic person who is highly sensitive to, let us say, egg, cannot touch egg cooked in any way or hidden in any cake or pudding, but the dyspeptic who will not touch a raw or soft-boiled or fried egg may have no objection to hard-boiled eggs and custards. Often he will eat a raw egg if it is beaten up in milk, which shows that, for him, the appearance of the food or the way in which it is cooked or served is the important factor. If it looks greasy or is pan-fried or warmed over or served almost cold or on a dirty plate he cannot eat or digest it. I remember an old-maid type of man who promptly vomited some malted milk because he said it was sweeter than he liked it to be.

The dyspeptic is likely to be nauseated by any suggestion that a food was spoiled or contaminated or prepared in a dirty kitchen. Perhaps when he is on a fishing trip he will eat and digest many foods that he dares not touch at home. Usually, he is prejudiced against many foods and unwilling to eat them, although he may never have tested them.

RECOGNIZING PERSONS WITH A SLOW REACTION OF BLOOD PRESSURE TO POSTURAL CHANGE

Indicative of a slowness in the reaction of the vasomotor nerves to postural change is the complaint of dizziness which is felt when the person stands up after having bent over perhaps to get a book on the bottom shelf. Sometimes these persons get faint, dizzy, and uncertain after standing awhile, or when they get out of bed in the morning.

RECOGNIZING PERSONS SUBJECT TO HEADACHE

When a woman complains of headache, it is helpful to know whether or not she has always gotten headaches easily. Perhaps her mother is of the same type. Then the symptom is less likely to have serious significance than when it appears for the first time in a person who had always been immune to headache.

DIAGNOSTIC SIGNIFICANCE OF NEURODERMITES

That the skin is an organ of the body much under the influence of the emotions has been preached repeatedly by Dr. John Stokes. Actually, so much of his work has taken him into the field of psychiatry that today he is as much a psychiatrist as a dermatologist, which is saying a lot. His writings in this meeting-ground of two specialties are delightful and most instructive.

Often the fact that a good dermatologist has diagnosed a neurodermite will make me feel all the more certain that I am dealing with a functional type of indigestion. I remember a brilliant young physician who came in with a story of indigestion and a disabling dermatitis which in his home city had been thought to be due to contact with some irritating drug. When Dr. O'Leary recognized a neurodermite I quickly drew out the story that the trouble began when the patient's mother went insane, and it flared up every time she wrote him a letter that upset him badly. When, at my suggestion, the mother was put in an asylum where she would be out of harm's way, and the wife took over the job of reading and answering her vituperative letters, the man promptly got well and went back to work.

In many other cases it was the recognition of a neurodermite that caused me to keep questioning a woman until she confessed to an unhappy marital tangle or other difficult situation which was responsible for her indigestion.

THE TONGUE

Always one should look at the tongue, because sometimes, especially in cases of diarrhea, one will see the atrophic or ulcerated or reddened tongue of sprue or pernicious anemia or one of the dietary deficiency diseases. It is hard to say how much a coated tongue means.

THE RECTAL EXAMINATION

Osler used to say that a consultant is a man who makes the rectal examination after the other physicians passed it up. Because cancer of the rectum and an enlarged prostate are so common, a rectal examination should always be made. Sometimes when a cancer is a little above the reach of the finger one can suspect its presence because of a peculiar sensation as if the finger had entered a cavern; the walls do not cling closely as they do in the case of a normal rectum. The sigmoidoscope should be passed in all cases of diarrhea and in all puzzling cases in which an older person has failed in health. Every so often such an examination will reveal an unsuspected carcinoma.

STUDYING THE STOOLS

I think gastro-enterologists ought to look at the stools more often than they do. Many years ago when I worked in a clinical laboratory, I was much impressed by the fact that some patients suffering with flatulence brought in stools which were poorly digested and full of gas. They were

full of bits of food which showed no sign of having been either chewed or digested. Oftentimes it was easy to see which foods the patient should not have eaten, and, actually, in many such cases, when I modified the diet so that the patient brought in a well digested stool, the abdominal distress previously complained of disappeared.

NOTING HOW THE PATIENT BEHAVES WHILE HE OR SHE
IS GOING THROUGH AN EXAMINATION

As a woman goes through her tests the physician can learn much about her by watching how she behaves and how she reacts to little discomforts. Perhaps she faints when blood is taken, or she cries out before she is hurt, or she "has a fit" over a venipuncture, a proctoscopic examination, the passage of a stomach tube, or the running in of a barium enema. Perhaps she acts like a spoiled child without self-control. Perhaps she fails to co-operate with physicians and nurses, and soon she gives them the impression that she hasn't good sense.

I remember a young woman who came from a distant city with letters saying that she was in a bad way with chronic ulcerative colitis. She said she was desperate to get relief, but in the hospital she wouldn't stay in bed and eat the food set before her; she kept going out to get chocolate bars and ice cream. When asked to save specimens of urine and stool she couldn't be bothered, and when asked to cut down on her smoking she continued to light one cigarette with another. As might have been expected from this undisciplined behavior, what she had was not ulcerative colitis but a nervous diarrhea brought on by a falling-out with her beau.

SIGNS OF A POOR AUTONOMIC BALANCE

In some cases I learn much about a patient's nervous instability by noting that several of the deviations from normal which were encountered on the first day of examination later disappeared, apparently because the person had calmed down. For instance, in a certain case, on the first day the pulse was 120 a minute, the blood pressure 150 mm., and the temperature 99.6° F. The urine contained albumin and a trace of sugar, and the leukocyte count was 12,000. A few days later, the pulse, blood pressure, temperature, and leukocyte count all were normal, and the urine contained neither albumin nor sugar. These findings indicated to me that in this person the regulatory devices in the hypothalamus were easily disturbed and thrown out of balance by emotion.

THE PATIENT WHO RUSHES AWAY WITHOUT WAITING FOR TREATMENT

That many persons are not suffering so much as they say they are is indicated by the fact that after having traveled a long distance to see a consultant they rush off the minute they hear that nothing organically wrong was found, or sometimes even before that. If they had been suffering as much as they said they were, one would think they would have remained long enough to get at least one prescription.

THE PATIENT WHO GETS WELL ON HIS WAY TO SEE A CONSULTANT

Often I am helped to a diagnosis of a functional trouble, or at least a large functional element in an illness, by noting that the patient lost his symptoms as soon as he got on the train, or shortly after he saw me and noted that I was not alarmed over his story. This happens not only to patients with purely nervous diseases but to many who have ulcer or some other organic disease with an anxiety or fatigue neurosis superimposed. A little rest and reassurance, and they feel fine.

Chapter VI

USEFUL OBSERVATIONS TO BE MADE AS THE PHYSICIAN DEALS WITH A PATIENT

"Learn how to decipher faces and spell out the soul in the features."—
BALTHASAR GRACIAN.

"For one mistake made for not knowing, ten mistakes are made for not looking."—J. A. LINDSAY.

IN THE CASE OF NERVOUS AND PSYCHOPATHIC PERSONS, THE PHYSICAL EXAMINATION as ordinarily carried out usually fails to reveal anything of importance. The heart and lungs are normal, and nothing wrong can be palpated in the abdomen. But this does not mean that an observant and experienced physician cannot note many important things, not only while he is examining the patient but while he is greeting him, taking his history, and watching him submitting to the several tests and examinations. Actually, in many cases, such observations made along the way are the most important of all in determining the diagnosis.

Because this is true, it bothers me to see how little some young physicians seem to observe. Doubtless they do notice many of the things that I mention in this chapter, or at least notice them enough so that they will recognize a psychopathic personality, but in my experience they seldom record these impressions on the history sheet, as they should. They seldom put down such facts as that a patient is, let us say, cheerful, wide-awake, and pleasant, or depressed, slowed-up, reserved, or reticent, or grimacing, or limping, or leaning on a cane.

THE NEED FOR OBSERVING

To show how tremendously important little observations can be, I sometimes tell the story of the European manager of a great corporation who was sent in by his chief because he had so lost his drive that it seemed inadvisable for him to go back to his post. The man had just been sent

through the diagnostic mill in a big medical institution but there he had been given a fine report because all the usual tests had failed to show anything wrong. As the man walked into the office I made the diagnosis of probable cerebral arteriosclerosis, with mental deterioration, and shortly afterward telegraphed his chief recommending that he be retired. Within an hour the president of the company had me on the phone to ask eagerly what I had found. My answer was, "Gravy on his vest." The president said, "That's enough; thank goodness you saw it too." Obviously, in the case of a foreign manager of a big corporation, the failure to keep clean and neat is even more significant of disease than is albumin in the urine or eosinophiles in the blood. Unfortunately, this most important symptom is usually disregarded by physicians because it is not mentioned in books on physical diagnosis.

I will tell one more story to show that the diagnostic technic that we physicians now rely on to show up disease can easily fail us. One day I received a telegram from the chief medical examiner of an insurance company asking me to look up one of their branch managers who, at the time, was going through the Mayo Clinic. The officials of the company knew something was decidedly wrong with him but several medical overhaulings had failed to reveal what it was. On looking the man up, I found that his examination had just been completed and that he had come through with flying colors. But as I chatted with the fellow I gained the impression that he was much too talkative and jovial even for an insurance salesman; so I called the wife out of the waiting-room and asked her if her husband was always so voluble and gay. "No," she said, "he is now at the top of a wave; later on he'll be at the bottom, and then for some weeks he'll be depressed and discouraged and talking about suicide." Obviously, the man was suffering from a manic-depressive form of insanity, *but no one would ever have suspected this from anything that had been put down on his history sheet* or had turned up during a thorough examination! Some may ask, But why didn't someone tell the doctors the essential story? The answer is that no one thought to ask; the patient wasn't going to volunteer the information, and his wife had not been asked for her version of the matter.

OBSERVATIONS THAT CAN BE MADE IN THE WAITING-ROOM

Actually, this process of observing important things which are not usually recorded on the history sheet, and making the essential diagnosis from them, can begin in the physician's waiting-room or even before the

patient arrives. An experienced medical secretary will often make the correct diagnosis of psychoneurosis or constitutional inadequacy just from glancing at the long letter received from a patient who has written to tell of her troubles and to ask for an appointment. And the girl at the reception desk commonly recognizes a psychopathic personality before her employer does because the patient, let us say a woman, is not so likely to be on her good behavior in the waiting-room as she is when she gets in to see the doctor. In the waiting-room she may be impatient, unpleasant, and unreasonable; fidgeting about, running out often to the toilet, and coming up to the desk every few minutes to ask angrily why she cannot be seen at once. In the consulting room she may behave so well that her psychopathy will pass unnoticed.

OBSERVATIONS MADE AS THE PATIENT IS GREETED

Naturally, the physician will learn much as a woman comes into his consulting room. He will note if she is pleasant and friendly, or reserved and diffident; intelligent or unintelligent; wide-awake and quick, or dull and slow; neat and clean, or poorly dressed and unkempt. One day I made a diagnosis of psychoneurosis plus scatter-brainedness the minute a well-to-do woman of forty-five walked in, trying hard to look twenty-five, with bleached hair, and the clothes of a factory girl on a holiday. As one might have expected, the pain in her stomach, for relief of which she had been traveling from physician to physician, came when she lost her grip on a young man whom she had hoped to marry. One day I knew most of what I needed to know about a migrainous woman when she walked in with her eyebrows pulled a half inch up on her forehead. Chronic nervous tension was her trouble. The sensitiveness of many migrainous women is obvious as they shade their eyes and blink in distress when they face the window in my room.

One day a man came in complaining of vomiting. When he kept his hat on in my consulting room I immediately got a hunch and asked his wife if, of late, he had been doing queer things. When she replied that he had, I promptly turned him over to the neurologists who found a brain tumor.

I like to note, as a man comes in, whether he gives the appearance of youth, strength, and health; whether his step is firm and springy, or whether he looks ill or prematurely old. Perhaps he has a stiff and painful spine, the presence of which can easily be recognized as he walks or sits or gets up out of a chair. Occasionally when a patient comes on crutches or in

a wheel chair I will see that these aids are not really needed, and this will tell me much.

It should not be hard to recognize the dissipated person or the gay bird with his hard face; or the sullen, dull-looking, and perhaps red-faced or pimply epileptic; or the alcoholic with his velvety skin, his tremor, and his anxious look; or the eccentric "character"; or the emphysematous asthmatic, with his wheezes and his barrel chest; or the man with a pansinusitis, with his wide nose and his nasal voice; or the post-encephalitic, with his poker face and his slow speech and movements; or the man who has had a slight stroke, with his unbalanced facial muscles and his poor grooming; or the frail-looking or perhaps scrawny, constitutionally inadequate woman; or the typical old maid, married or unmarried; or the fussbudget and perfectionist who is going unhappily through the menopause; or the mannish woman with a man's haircut, a tailored suit, woolen stockings and flat-heeled Oxfords. Occasionally, when I walk into my room to greet a new patient seated there, perhaps with a relative, I am impressed by the fact that he or she makes no move to welcome me, and perhaps even goes on reading a magazine or looking out of the window. Usually this means that he or she has a schizoid personality.

On shaking hands one will often note clamminess and wetness of the patient's palm. This is usually a highly important sign of a tense, worrisome temperament. In rare cases one can make the diagnosis of exophthalmic goiter from the great warmness of the hand, and then one may note scary-looking eyes, axillary sweating through the clothes, perhaps a peculiar dark reddish complexion, and some restlessness and anxiety. A slight stammer often points to a poor nervous inheritance. One can easily recognize the overly shy person who shakes hands with some distress and embarrassment, or the man who has lost much weight, with his clothes hanging loosely about him. The fact that a man has the top two or three buttons of his trousers unbuttoned can lead directly to a diagnosis of gallstones, cirrhosis of the liver, or carcinomatosis of the peritoneum.

OBSERVATIONS MADE AS THE HISTORY IS BEING TAKEN

After the patient sits down and begins to tell his story, the observant physician will go on noting many things, some of which are described in a previous chapter. He will soon know whether the patient is intelligent and mentally accessible, attentive and co-operative, or stupid, unfriendly, reserved, combative, opinionated, not quite sane, slowed-up, mentally inaccessible, inattentive, or un-co-operative. He should soon know whether

the patient is the sort of person who is likely to be helped by any treatment, or if he or she is not worth wasting time over.

Occasionally a young woman will be so reticent and mentally inaccessible that no amount of friendliness and kindness will thaw her out. After a week around the office, during which time she has been shown more than the usual amount of attention and courtesy, she will leave without saying "thank you," or perhaps even "goodbye." As R. L. Stevenson once said, these persons are "tied for life in a bag which no one can undo. They are poorer than the gypsy, for their heart can speak no language under heaven." Some crave friendship and love but they can neither give nor accept these gifts because they missed insanity by a narrow margin.

Patients Who Do Not Listen. One of the most important things that impresses me about some women in the office is that they do not listen to what I say. They may not listen even long enough so that I can finish a sentence. They want to do all the talking themselves. As soon as I see this type of behavior I stop wasting my time. How can I hope to help such a woman when she will not listen long enough to hear what I want her to do?

As the history is taken I can learn much by noting if the patient sits quietly or fidgets. The woman with hyperthyroidism can sometimes be recognized by her inability to sit still. A badly frightened or anxious or tense man may want to stand during the interview. Rarely, as when he fears cancer, he will keep licking his dry lips. A woman may keep tearing at her handkerchief, or she may make grimaces, twitch, contract her neck muscles, or bat her eyelids. In the case of a red-headed woman red splotches may form on the neck and spread downward. A woman's chin muscles may quiver as she fights back tears, and she may break into tears as she tells parts of her story. She may say that she has long since gotten over the sorrow of a broken engagement or an unfortunate marriage or the death of a loved one, but the tears that well up in her eyes as she speaks show that the wound is not yet healed. Other persons will flush and redden when some sore or embarrassing or anger-producing psychic spot is touched. A nervous woman may jump when the telephone rings.

A certain type of psychopathic woman will cross-question the physician, trying hard to catch him in some inconsistency of statement. She will probably be incurable because she will cling firmly to her own diagnosis. We physicians all know the old school teacher who comes with a notebook and a long list of symptoms, most of them of little consequence. A

woman with a hysterical paralysis or pain may give herself away by showing so little concern over an illness which is ruining her life and making her a recluse. The patient who is insensitive or uninterested in his disease can be recognized from the fact that he complains little and lets his wife tell most of the story.

The Patient's Relatives. Incidentally, in some cases, much can be learned about the patient's troubles by watching the relatives who come along, and the way in which they and the patient react on each other. I may learn much about a young woman's bad heredity by seeing how crazy the mother is, or I can see that the patient is being subdued and brow-beaten by a mother, sister, or husband. I remember a single woman of forty whose long story of illness and unhappiness was easy to understand when, one day, she brought in her cold and ruthless older sister who had dominated her and ordered all her ways almost from the day she was born.

Often a psychoneurosis is easier to understand when a gentle, refined woman comes in with a husband who is of a low social stratum, or uninteresting, poorly educated, discourteous, deformed in some way, too old for her, or just too dull or engrossed in business to notice her or to love her in an acceptable way. Many a time when such a husband comes in I can see instantly why the wife is unhappy and tired, and full of aches and pains. Perhaps they started together in lowly circumstances, and as they grew up and prospered she improved herself and found culture, while he just made money and kept the speech and the set of table manners that he started with. Now his ways distress her until she feels she could shriek.

Many a time also I learn much about a neurosis by noting that the woman is afraid of her husband. She may glance at him fearfully before she answers a question, or from time to time they may shoot meaning and unpleasant glances at each other. Perhaps she looks bitterly at him when I ask if she has had children, and I find later that she has long resented his refusal to let her have any. Many a time I have been much helped to the diagnosis through listening to a family row in the office, or I have been able to see that the man was fed up with his wife's chronic illness and tantrums, and was about ready to walk out. Occasionally I have been tipped off to the fact that a woman was not happy about her marriage by the fact that she was not wearing her wedding ring. This may not mean much in these days of feminine independence, but still, the woman who loves her husband usually likes to wear his ring. Sometimes I can see that a neurotic, constantly ailing woman is in complete command of the situation; she wears the trousers, but is resentful because she can do so.

Perhaps her husband, after all he has had to take from her, still seems devoted and fond of playing nurse.

MISCELLANEOUS OBSERVATIONS

I always make mental note of the fact that a woman has some deformity such as an ugly birthmark, a squint, big legs, great tallness, or much hair on the face. Such things are a constant source of humiliation and suffering; they take a great toll of the nervous system, and they tend to mold character adversely. More than once I have helped a psychopathic woman with a hairy face to straighten out nervously by getting her to shave every day.

In the case of women, I think we physicians should make note of signs of abnormal sexual development because these are so closely correlated with psychopathies. Is the woman rather masculine in build? Is she a typical thin old maid? Has she a male type of distribution of hair on face, nipples, abdomen, and thighs? If she has too much fat on her, is it fairly well distributed, or has she a "buffalo hump" and the big thighs which are supposed to indicate disease of the pituitary gland? Has she the small, hard, nodular breasts which, in hypo-ovarian and neurotic women are often painful at menstrual periods? Ticklishness of the abdomen is interesting in women because in them it is often correlated with psychopathy and deficient sexuality. Marked irritability of the erectile tissue around the nipple has been said to be a sign of heightened sexuality, but I doubt it because it is most marked in fat, oldish women with big breasts.

I like to see that a multiparous woman has no striae gravidarum on the abdomen because it suggests that her tissues have a high degree of resiliency, and I suspect that this is correlated with a delayed senility and a long life. I have seen disfiguring striae on young women who faded early. Atrophic striae on hips, breasts, and shoulders show that the patient once weighed more.

During the physical examination there are a number of things that can be noted. Sometimes a woman will object to undressing and will be abnormally prudish. Today among American women under forty who are used to appearing in public in abbreviated costumes, this may indicate some psychopathy. Another sign of psychopathy is a peculiar reaction to a pelvic examination. The woman will adduct the thighs, perhaps push away the physician's hand, cry out before she is hurt, and in the worst cases will get hysterical the minute the hymen is touched. I fear that women with this type of behavior are likely to be dyspareunic all their

lives. Curiously, many of them make no fuss if the pelvic examination is made through the rectum.

On examining an unmarried woman it may be well to note whether she is anatomically virginal because if she has a marital type of outlet, tactful questioning may reveal the fact that her neurosis is due largely to unhappiness over an unfortunate love affair or a broken marriage. Occasionally one will find a woman, long married, who is still a virgin, and this may explain her illness.

The woman with an irritable bowel syndrome will sometimes have the skin of her abdomen pigmented from the long-continued application of hot water bottles. One glance at this and the physician will know a lot about her. I often wonder what significance one should attach to the fact that a man has no hair on his chest, or that he has a feminine type of pubic hair.

Often when a young man or woman undresses in a cool room, the skin of the feet, the legs, and perhaps even the thighs will turn blue. This peculiarity is highly important, and indicative of a neurocirculatory asthenia of some kind. Often it goes with constitutional inadequacy and a tendency to hypertension and the coming of varicose veins. Sir James Mackenzie described the syndrome under the name of the x-disease.

The patient who cannot climb up on the step of the examining table without the help of the hands has a quadriceps weakness which is sometimes due to a thyrotoxicosis. Women with no gag reflex are supposed to be hysterical. Often I pinch a fold of a woman's abdominal wall to see if the distress she complains of is outside the abdomen. If it is, I will pinch a fold of skin over the triceps muscle to see if her tissues are hypersensitive all over. In rare cases, a woman will be so sensitive that she will complain when the sphygmomanometer cuff is inflated on her arm. Some of these persons may perhaps have some form of fibrositis or myositis; some may have a mild degree of adiposis dolorosa, whatever that is, and some are psychopathic. A rigid abdominal wall in a sick-looking old man is often due to carcinoma of stomach or bowel. In such cases it is well to pass a sigmoidoscope because cancer of the rectum is a common disease. It may metastasize to the liver before it produces recognizable local symptoms.

Fingernails bitten to the quick will point, of course, to a nervous temperament. Clubbed fingers point to chronic disease of the lungs. Fingers badly stained by cigarettes tell a tale, and in some men who smoke too much, the whole body reeks of tobacco. As I say elsewhere in this book, exaggerated knee jerks and a rigid abdominal wall tell me most of

what I need to know about the tenseness of many a nervous patient.

Often a woman will call my attention to the fact that she bruises easily, or without apparent cause gets black and blue spots on her thighs, but I do not know what the significance of this is. Probably in these women the walls of the blood vessels are delicate and easily ruptured. Sometimes I find a person dripping with perspiration, apparently because he or she is so nervous over the examination. That this is not due to hyperthyroidism is shown by the fact that the skin is cool, and the basal metabolic rate is normal. Many persons have a dry, scaly skin which is due to the inheritance of a mild degree of ichthyosis.

I wonder why so many persons, when asked to look at the physician so that he can check the pupillary reaction to light, keep looking everywhere but at him. There must be some reason for this contrary behavior.

BAD BREATH

Diagnostic help can be gotten at times by noting the breath of a patient. A perfectly sweet breath suggests excellent health and a good digestion. Fear, anxiety, and suppressed excitement will sometimes produce a fecal type of foul breath.

The stench of an extensive carcinoma in the stomach or colon can sometimes be recognized on the breath, and any experienced physician will recognize the bad breath of the seriously ill or the dying. The breath of a person with pyorrhea has a peculiar mawkish odor that can be recognized. A good clinician will recognize also the breath of the diabetic or the patient with uremia. Some bad breaths are hereditary and due apparently to some peculiarity in body chemistry.

Incidentally, Miss Katharine Sawyer, in charge of the gastric laboratory at the Mayo Clinic, often makes the correct diagnosis of gastric cancer simply by noting a foul odor on the stomach tube as it is withdrawn.

Chapter VII

PROBLEMS THAT COME UP IN PLANNING THE EXAMINATION OF THE PATIENT

"It is rarely permissible to base a diagnosis on a single sign."—J. A. LINDSAY.

"The introduction of the sphygmomanometer was a disaster from which we have not yet recovered."—T. A. Ross, Lectures on War Neuroses, 1941.

"Nowadays, respect for the results obtained by graphic methods has increased to such an extent that electrocardiographic findings are often considered sufficient evidence on which to base a grave diagnosis and prognosis, even when clinical observation points to the contrary. In the field of prognosis, especially, evaluation of electrocardiographic data has done more harm than good."—WILLIAM DRESSLER, Clinical Cardiology.

"Not that we all live up to the highest ideals, far from it—we are only men. But we have ideals, which means much, and they are realizable, which means more. Of course there are Gehazis among us who serve for shekels, whose ears hear only the lowing of the oxen and the jingling of the guineas, but these are exceptions; the rank and file labour earnestly for your good, and self-sacrificing devotion to your interests animates our best work."—SIR WILLIAM OSLER, Cushing's biography, page 408.

If you wish to fail in the practice of Medicine—"Always seek your own interests, make of a high and sacred calling a sordid business, regard your fellow-creatures as so many tools of trade, and if your heart's desire is for riches, they may be yours; but you will have bartered away the birthright of a noble heritage, traduced the physician's well-deserved title of the Friend of Man, and falsified the best traditions of an ancient and honorable Guild."—SIR WILLIAM OSLER, Aequanimitas and Other Addresses.

"When there cometh unto thee one who is grievously afflicted with fear of a disease, and thou seeest he hath it not, vouchsafe unto him only that attention which, according to thy wisdom, his cure requires of thee. To give more only for gold would savour of the practice of the barbers with a countryman. Verily, from him who acts for gold alone the Gods of healing will turn away their countenance; their power will go out of him, and he will become as a shop keeper with false weights."—Wisdom of Ho-tep, Ancient Egypt, Erman's translation.

IT SELDOM OCCURS TO THE PATIENT OF TODAY THAT A PHYSICIAN CAN
RECOGNIZE A DISEASE WITHOUT THE HELP OF TESTS

BECAUSE OF THE GREAT TRUST THAT THE LAYMAN HAS TODAY IN TESTS, AND tests alone, I often have great difficulty in getting a woman with a neurosis to see that the nature of her disease was obvious to me the minute she came into the office, or shortly after she opened her mouth. She who was fidgeting about, suffering from tics, fighting back tears, and pulling at her handkerchief cannot understand why I should think that she is a "bunch of nerves!" Sometimes, to get her to understand what I am talking about, I turn to her husband, who perhaps is a salesman, and ask him if he cannot tell many things about a woman the minute she comes into his store, such as whether she wants to buy something or is just looking around; and he will say, "Of course I do; after years behind a counter I can't help knowing much about people and how they are going to behave." Then I say, "All right, for nearly forty years I have been sizing up sick people, and hence your wife ought to give me credit for knowing something about them."

Sometimes, and especially when I am talking to a salesman, I tell of an experience I had one evening during my college days when with two classmates I was strolling about, waiting for a theater to open. Seeing a microscope in a pawnshop window, we went in to look at it, but the man wouldn't bother to show it to us. When I asked him what sort of a salesman he was, he said, "Oh, run along; you fellows don't want to buy anything; you're just killing time," upon which I had to admit that I had maligned him, and he really did know a buyer when he saw one.

I may say also to the patient who cannot understand how I could make a diagnosis from a history, that no matter how stupid I may have been when I started in practice, I just couldn't have spent thirty-odd years in daily contact with a few types of sick people without learning a great deal about them and their diseases. A number of these diseases I now cannot help recognizing at a glance just because I have seen them so many hundred times. To show what I mean, I say, "Look, if you were to hear a child coughing violently in a peculiar brassy way, then to hear it whoop, and then to see it vomit, you would promptly diagnose whooping-cough, wouldn't you? And you would never think of asking anyone to send the child's sputum to a laboratory to be examined for the bacillus of whooping-cough. You would *know* the disease was whooping-cough simply because you had seen that clinical picture before. Well then, when a thin, frail

little woman comes in with a story of constant fatigue, headache, backache, constipation, air-swallowing, fluttering in her abdomen, abnormal menstruation, repeated illnesses, and several futile operations I know I am dealing with a constitutionally inadequate type of person because I've had hundreds of them come in and tell that story. Similarly, when a man says he has had tarry stools and a pain in the pit of his stomach which comes when he is empty and goes away when he eats or takes soda, I hardly need send him to a roentgenologist because I know he has an ulcer."

PATIENTS AND PHYSICIANS NOW PUT TOO MUCH TRUST IN TESTS

Today most persons think so little of this way of making a diagnosis that when they go to see a physician they hardly think it necessary to give a history or to have a physical examination. Thus, one day the vice president of a big company came in and said, "Send me for an electrocardiogram; I want to check up on my heart." Did he care to have me ask him any questions, or even to listen to his heart sounds? No; his idea was that the records made by a machine would tell everything he wanted to know, and that they would do this with an accuracy and infallibility far beyond any attainment of mine. He did not know how easily the instrument can make a deceiving record, and he did not know that always this record must be interpreted by an expert, competent to say if it fits or does not fit with the facts of the history and with the several findings.

Many times a month I am reminded that the records made by our instruments of diagnosis must always be interpreted by some one with training and experience. I am reminded of this often when a bright, thin, wide-awake woman tells me that her home physician has just diagnosed myxedema because *one* measurement of her basal metabolic rate was reported as — 35 per cent. I say to her, "But you, with your mobile face, quick wit, quick movements, active reflexes, warm skin and rapid pulse, cannot have a rate of — 35. If you had, you would be slowed up and sleepy and pudgy." Then I send her for three successive tests, all of which come out well within limits of normal. Evidently, something must have gone wrong with the tests made at home, or the laboratory girl was off in her calculations. A technical mistake is forgivable; but it is not forgivable when a physician accepts so implausible a report without question. When almost every day I see the bad results of this sort of practice I am distressed, and I feel that those of us who are teaching in medical schools must be falling down on an important part of our job; we are not warning our students sufficiently about this sort of mistake.

And if some of us physicians are so ready to accept laboratory reports uncritically, why should our patients be any better? The attitude of patients is seen in their oft-expressed desire to take their roentgenograms home with them so that they'll have "something at least to show for the money they spent." I try to get them to see that far more important than the film is the opinion of an eminent roentgenologist as to what it showed, but often I fail to make any impression. They still think it would be nice to see what their chiropractor would say about it. They have no conception of the years of training and experience that are needed before one can safely interpret what is to be seen in a roentgenogram, and they have no idea how easily one can be deceived.

THE REPORTS FROM THE LABORATORY MUST FIT WITH THE HISTORY

I remember a lesson I learned once from the case of a man with pain at the tip of his left shoulder. When an anterior-posterior roentgenogram of his neck showed what appeared to be a tumor of one of the cervical vertebrae, it seemed obvious that this must be the cause of the pain, and my natural impulse was to ask a surgeon to operate. But I couldn't get over the fact that the trouble had followed the perforation of a gastric ulcer and the probable formation of an abscess under the left leaf of the diaphragm, and I suspected that the pain was going up by way of the phrenic nerve and out along the branch that runs to the tip of the shoulder. The roentgenologist was also dissatisfied with his diagnosis, and when he made a lateral roentgenogram of the neck, he found that the tumor was in the thyroid gland! As we expected, then, the pulling out of the left phrenic nerve promptly stopped the pain.

I recall the case of another man who would have had a useless operation if his brother had not questioned a diagnosis based solely on a roentgenologic report, and insisted on getting another opinion. In 1929, much upset over financial losses, the patient got sick headaches and went to a so-called clinic which advertised an overhauling for \$15. Because the films of the stomach showed a defect which was interpreted by some girl as due to cancer, the man was sent to a hospital to have a gastric resection. His brother brought him to me, and the minute I saw the films I saw that the filling defect was due to the pressure of the spine on the stomach; he had no cancer, and he is alive and well today.

Another good illustration of what can happen when a physician trusts to roentgenograms alone is to be found in the experience of a woman who was always healthy until she developed insomnia from worrying over a

love affair. When her physician received the report that she had a non-functioning gallbladder, he rushed her into a hospital for cholecystectomy. The only thing that saved her was the last-minute arrival of her doctor brother. What bothered him was that his sister had no symptoms of cholecystitis and never had had any. Soon he brought out the fact that she had vomited the dye a few minutes after she had swallowed it, and then it was obvious why it hadn't shown up in her gallbladder! Next day when she succeeded in holding down the dye, the roentgenograms showed a perfect gallbladder, and later when she got married her insomnia disappeared.

WE PHYSICIANS ARE GIVING OUR PATIENTS THE IMPRESSION
THAT WE DIAGNOSE ONLY FROM LABORATORY REPORTS

The type of practice I have just been describing, so bad to begin with, is doubly bad when it serves to confirm our patients in their growing view that we physicians diagnose only with the help of machines and tests. Worse yet, we who teach in medical schools are giving the same idea to our students. We are giving them the impression that if the tests suggest some disease, that is what the patient has, and if they show nothing, then perhaps he or she has chronic nervous exhaustion or is just imagining things.

Much-traveled patients have told me of their experiences with one busy consultant after another who, they said, did not say ten words to them until every conceivable test had been made by laboratory workers, roentgenologists, and specialists. Then the doctor glanced over the pile of reports, commented on the positive findings, promised to mail a copy of the record, gave a prescription or two, and led the way to the door. Can one blame a patient so treated for looking on the doctor as only a broker or middleman who contributed nothing to the diagnosis, and can one blame him later if, when some wise old doctor tells him that psycho-neurosis is so plainly written all over him and his history that there is no need for tests, he looks on the man as slipshod and ignorant?

WHEN THE DIAGNOSIS IS IMMEDIATELY OBVIOUS, SHOULD THE PHYSICIAN SAY
SO AND TRY TO SPARE THE PATIENT THE EXPENSE OF AN EXAMINATION?

Often when the diagnosis is obvious from the start, and especially when the patient has recently gone through several thorough overhaulings with negative results, I hate to start making the tests all over again, and my impulse is to try to spare the patient the expense and trouble involved. Often

also when I can see at a glance that there is little chance of my ever making over the frail psychopathic woman who has just come in, I will hate to start examining her thoroughly as if I expected later to work a miracle for her. I will hate to lead her on and build up hopes which must later be dashed to the ground, if only because then, when I hand out the disappointing verdict, she is likely to become angry and resentful. Furthermore, when I have only so much precious time to give her, it seems to me that I ought to be spending it usefully in explaining to her her constitutional inadequacy or the origins of her neurosis, and in showing her how she might adjust to some unhappy situation or live within her means of strength. When I can foresee that a woman is going to be terribly disappointed when she discovers that she has spent all her savings "for nothing," I will wish that I could send her away before she has time to build up a grievance against me. Actually, some of these people who have traveled a thousand miles or more in expectation of a miracle of healing are so bitterly disappointed and aggrieved when I refuse to promise any cure that they suggest that I ought to refund their train fare to them!

Always I say to these people that I am sorry as I can be. I can understand how they feel, but they must remember that it isn't my fault that they didn't come with a cancer or something that I could get the surgeons to cut out. Sometimes I can remind them that their home physician warned them not to set out in search of the Fountain of Youth, and often I say truly that if I could only have seen them at home for a few minutes I would have begged them not to make the trip. Often also I can remind them that at the first interview I warned them against hoping for a cure, and I begged them to let me save them money by not ordering a lot of tests for which I could see no indication.

Naturally, I have most difficulty with the ignorant and unreasonable type of person with a low I.Q., who has great faith in drugs and surgery and is sure that if I had only made a bigger effort, I could have found organic disease and removed it. Only occasionally do I have the pleasure of finding an intelligent woman who at the first interview says, "If you are satisfied as to the diagnosis I certainly do not want to go on wasting time and money on examinations. I will trust to your judgment as to what tests I should have." Naturally, such behavior cannot be expected when one is dealing with the woman who insists that her troubles are not due to nervousness. If there is one thing in this world that she wants to find it is a physician who will never even think of nervousness but will keep searching through her body for organic disease until he finds it. With such a

woman, and especially when there is some doubt about the diagnosis, I naturally express no opinion until the examination is finished. To tell her at the start that I know what is the matter would only be to make her feel that I was hopelessly biased and therefore useless to her. She might even think, then, that if I were to run on to organic disease, my mind would be so closed that I wouldn't notice it or mention it.

To avoid making any such bad impression at the start, my old preceptor in internal medicine made it a rule never to hazard even a guess as to the diagnosis until all the evidence was in. In this way he not only avoided giving the patient the idea that he was starting out with a closed mind but he saved himself from the occasional embarrassment of having to confess that the trouble which at first he had thought must be nervous in origin was really due to a serious disease. Having to change a diagnosis in this way is bad because it undermines confidence in the physician, and is likely to arouse resentment against him.

Although, then, I know the advantages of keeping silent as to the diagnosis until all the evidence is in, and although in some cases I have ended up wishing devoutly that I had done this, I know also the advantages that can come from showing the patient at the first interview that his tale of woe, which he thinks is so puzzling and rare, is an old story to me, and one that points to a disease that I know well. Many a time, when dealing with an intelligent man, I have had him depart satisfied and almost cured after one interview, simply because I showed that I was so conversant with the story he told me. He felt that if I could ask for one after the other of his symptoms before he had time to tell me about them, and if I could so easily explain their mechanism, I probably knew what I was talking about.

IT IS HARD TO TAKE A GOOD HISTORY WITHOUT REVEALING ONE'S KNOWLEDGE AS TO THE DIAGNOSIS

Actually, as I have, of late, watched myself taking histories in cases of functional disease, I have come to question if, in some cases, it would be possible to draw out the essential story without letting the patient see that, from the start, I had a good idea as to the nature of his or her trouble. For instance, I recently saw a thin, constitutionally inadequate girl with a typically nervous regurgitation. Her first words gave me the clue and quickly then I drew out the story of poor nervous heredity, a tendency to regurgitation dating back to infancy, then the death of the father who had supported her, then overwork at a trying job, and finally unhappiness over

a broken engagement. As I talked to her in this way, not only did the girl see that I understood her disease, but she came to know me as a person who wanted to help her. As I listened sympathetically to her story of her struggle to remain self-supporting, I was gripping her to me with bonds of friendship which were to be helpful later when I would have to exhort her to eat more than she wanted and to hold down the food as long as she could.

The great British psychiatrist, Ross, felt as I do that in drawing out the story of the causes of a neurosis, one can hardly avoid showing the patient what the causes *were* that produced his or her disease. While doing this one not only gives the patient some idea of what the diagnosis is going to be, but *one is also beginning the treatment*. Actually, in many cases, *the eliciting of a good history will practically cure the patient*.

The consultant in a large medical center whose patients come from a distance and are anxious to get away home as soon as possible has an extra reason for starting on the first day to prepare the victims of nervous strain for the disappointing diagnosis that is to come at the final interview. The physician who lives in the same town with his patient is not under such compulsion to hurry. Actually, of course, in a given case the wise physician will be guided by his judgment in deciding whether to speak of the diagnosis early or late in the period of observation and study. In many cases the diagnosis cannot be made from the history alone, and then, of course, the physician will wait until the results of all or most of the tests are in. In other cases the fact that a needlessly alarming report of some laboratory test was given elsewhere will make it necessary that this test be repeated before the physician can hope to start any psychotherapy.

HOW SHOULD AN EXAMINATION BE CARRIED OUT?

If it is decided that the patient be given a thorough medical overhauling, how should it be carried out? How many tests should be made, and which should they be? Should the number of tests be determined by the judgment of the physician or the desires of the patient, or should many tests be made simply to protect the physician from being accused later of ignorance or negligence?

Since most persons in this world live on so small an income that they cannot easily pay for extensive medical overhaulings, the disinterested and kindly and sensible physician will always use discretion in ordering laboratory and roentgenologic work, and he will order, especially at the first visit, only those few tests which are likely to answer the main questions

that have arisen in his mind as he has listened to the history. For instance, if a woman comes with pain in a kidney fossa, a little fever, and burning on urination, the essential thing will be to examine a catheterized specimen of urine and have a culture made from it. If infection is found, the doctor will treat it, and if then the woman gets well and stays well everyone will be satisfied. Later, if the infection should return a couple of times, the woman can be sent for excretory urograms to see if there is something wrong with the kidneys which impairs their resistance to bacterial invasion.

A PIECemeal TYPE OF EXAMINATION, IF POORLY DIRECTED, MAY BE BAD

For poor persons and often even for well-to-do ones, a limited piecemeal type of study, if intelligently directed, will usually work well enough, and it is the one that must generally be used because patients cannot be bothered to go through a long overhauling every time they go to a doctor. Besides, for most minor complaints they will not need much study. As a country doctor once pointed out to me, his patients had so little money to spend that they wouldn't stand for a lot of expensive tests unless some symptom had alarmed them, or an illness had dragged on a long time. Hence he usually had to get one test made and then give medicine and wait for a month before he dared order another test. He admitted that sometimes the results of this type of work were unfortunate. Thus, one day a farmer came in complaining of feeling run down. Some weeks later, after the taking of several vitamins and tonics had failed to do any good, the urine was examined. Later, at intervals of weeks, the man was sent to the city for a Wassermann, a roentgenogram of the chest and a gastric analysis. Later, when abdominal distress came, the doctor ordered roentgenologic studies of the whole digestive tract, then electrocardiograms, then blood chemistry studies, and finally, intravenous urograms. Unfortunately, at no time did the man get a good physical examination, and somehow or other the physician failed to have leukocyte and differential blood counts made. Finally, after the man's money and strength were about exhausted, he went to an excellent general practitioner who, on feeling a large spleen, looked at a blood smear, and in a minute made the correct diagnosis of leukemia!

A somewhat similar series of misfortunes attended the efforts of a city-dweller to find out why she was feeling run down and feverish. After asking a few questions, her much-too-busy doctor said, "It is probably your teeth; go and have dental films made." When these showed several

devitalized teeth, the verdict was, "Have them out." But since this would mean that she would have to have plates, she rebelled, and during the following month spent a few hundred dollars trying to talk the leading dental surgeons in the state out of operating on her. Finally, she gave in and had the teeth extracted, but still she dragged around. Then she was sent to rhinologists, and much money was spent without avail on roentgenograms of the head and on operations on the sinuses. Interestingly, each rhinologist seen refused even to look at the films made for the man consulted a few weeks before; he wanted his own, made by his favorite roentgenologist. When all this brought no relief, the woman was sent for a roentgenologic study of her digestive tract. Later, because the basal metabolic rate appeared to be — 12 per cent, she was treated (ineffectually) with thyroid extract. Finally, after several more such hit-or-miss efforts at diagnosis and treatment had been made, she went to an intelligent young clinician who took a history, noted complaints pointing to a urinary infection, found pus and bacteria in the urine, gave a few doses of sulfathiazole, and brought the long and expensive adventure to a successful close.

THE NEED FOR DIRECTION WHILE TESTS ARE BEING MADE

I could go on telling stories of this type to show that an overhauling, when not directed with intelligence and skill, is often an expensive and futile procedure. It seems to me needlessly expensive and I fear it is often futile when a doctor just sends his patient to a hospital to be "given the works" without any initial plan or subsequent supervision. I do not like this type of study for several reasons. One is that the patient gets a bill for board and lodging in addition to the one for his tests; the second is that in the absence of thoughtful direction much needless work is likely to be done, and the third is that when, as sometimes happens, the diagnosis becomes apparent on the first or second day, there is no one around to stop the diagnostic mill from grinding on to the usual end. To illustrate: Although on the first day of a man's examination the films of his chest showed a bronchial carcinoma, he was allowed to go on and finish \$400 worth of tests. Surely this was not right.

In another case a woman was put through \$550 worth of tests and was told that there was nothing wrong. Of course there wasn't, by the tests, because the trouble with her was that while waiting for a divorce she was so unhappy and tense that she was drinking herself to death. Such information could be obtained only from a good history, but the woman

said that in the hospital no one had asked her about her symptoms, and only a cursory physical examination had been made by an intern. The only part her physician played in the affair was that of a broker who ordered the tests and read out the reports.

Sometimes when a patient asks me just to send him for "the works" I object because that is like asking me to shoot a machine gun at the sky hoping that some one bullet might collide with a duck. I would rather get some idea as to where the duck was and then aim a shotgun in that direction.

I like to start with a few routine tests plus perhaps a few that are suggested to me as I take the patient's history. Then I want to see the person every day or two as the reports come in so that if a clue should show up I can immediately follow it out. Furthermore, with the new clue I can probably get a more pertinent history, and often I can cancel tests which, with the new evidence at hand, are no longer worth making. To illustrate: Let us say that a woman comes with a complaint of pain in the right side of the abdomen; if on the first day red blood cells are found in the urine, I will immediately ask that a catheterized specimen be examined. If still red blood cells are found, I will ask a urologist to study the urinary tract. If he reports stones in the right kidney, and if the pain complained of resembles renal colic, I will not see much sense in going on with further tests and perhaps roentgenologic studies of the digestive tract.

THE NEEDLESS AND THOUGHTLESS MAKING OF TESTS

To show the thoughtless extremes to which a few doctors will go in the matter of routinely ordering tests, a friend of mine told me of his annoyance one day when his young assistant brought to his desk a tired, weak, and emaciated old man who, during the preceding week, had been put through the mill so completely that he had even had a check of all foci of infection in teeth, tonsils, sinuses and prostate. All the home physician had wanted to know was if there was any chance of removing the man's easily palpable cancer of the stomach. Even when the assistant had found a mass on the rectal shelf it didn't occur to him to call off the rest of the overhauling and to spare the weary old man further discomfort and expense. Rightly, my friend refused to charge for the needless tests, and stood the expense himself.

One of the things that upsets me sometimes is to see that a new assistant who has just come from a residentship in a fine teaching hospital

does not think to save incoming patients the expense of having repeated a lot of tests recently made elsewhere. A poor little stenographer may have a typical migraine made particularly disabling by overwork or an unhappy love affair; there will be nothing in her history to suggest that she has cholecystitis, and the excellent films she brings with her will show a good concentration of the dye in a normal-looking gallbladder, and *yet down will go an order for another cholecystogram.* This is not only senseless and thoughtless but it is wrong and often cruel. Eventually such practice will give medicine a bad name, and already it is making many examinations too costly for the person of average means. The fact that the girl is usually desperate enough to say, "Yes, go ahead; I would rather that you make your own films so that you can be sure of them" does not reconcile me to the doing of this sort of thing; and when the patient is not so stupid or mulish or desperate that she demands it, I refuse to be a party to such wastage of money and time.

Evidently the physician will often have to feel his way when it comes to the ordering of tests. While running down a difficult diagnosis he will, of course, get everything done that is necessary, even when he or the institution in which he works will have to stand much or all of the expense. All of us physicians would, I am sure, much rather do extra work and make the correct diagnosis than to do too little work and make a mistake. Always, however, when the diagnosis seems clear enough from the history and physical examination, I try to "get by" with as few tests as I think will satisfy the patient and the referring physician.

MAKING EXTENSIVE EXAMINATIONS JUST TO SATISFY THE PATIENT

Occasionally a wise consultant will sense the fact that in order to satisfy the patient before him he will have to spend unnecessary time on the examination. To illustrate: A young physician once told me how his father, a famous oculist, handled a blind man who had traveled a long distance to see if there was anything new that could be done for him. The oculist saw at a glance that nothing could be done, but he sat down and spent some time with the man, examining him in various ways and asking many questions. Finally he told the poor fellow kindly that nothing could be done at that time; he gave him a prescription for some eye water, he charged him \$50 and let him go. My friend who had been watching, puzzled, said to his father, "Why did you waste your time and then take so much money from a man who, judging from his appearance, could ill afford it? Did you not see at a glance that the eyes were gone?"

"Yes," said the father, "I hated to take his money but I knew from long experience that if I had dismissed him in a moment and charged him \$5, he would have been dissatisfied and would have kept going from one oculist to another until he had spent more than I took from him. Now he will probably go on home."

Many a time I have tried to save a poor patient money by not ordering laboratory work and consultations which I was almost certain would throw no light on the diagnosis, only to learn later that he used all I saved him and more to go to someone else who he heard was the most expensive man in town and would make every conceivable test. This sort of thing is annoying but it must not cause the young physician to give up his ideals. Let him cherish them and work by them, and in the end great rewards of several types will be his.

ORDERING TESTS TO SAVE ONE'S REPUTATION

Doubtless, more and more through the years we physicians will have to puzzle over this question of whether we are going to order the tests which we think are worth making, or are going to order many unnecessary ones simply to satisfy the patient at the time, or are going to order many just to save ourselves from criticism in case someone later should raise an eyebrow and, all aghast and distressed, say, "What? Weren't you given a basal metabolism test? Didn't you get a gastric analysis? Didn't you get an excretory urogram? I wouldn't call what you had much of an examination. I am surprised; I thought that that man was thorough."

As I was writing this chapter, I received two bitter letters from former patients who had been badly upset on discovering, as they said, that they hadn't gotten from me a *complete* overhauling as they thought they had. One was a nervous, tired little seamstress who had \$80 worth of tests for which we let her pay only the \$20 she could afford. At that, she got enough tests so that I was satisfied that she had no organic disease. The other was a psychopathic woman who, when she came, wanted to blame all her troubles on allergy. Now she is outraged because, as she says, I skin-tested her with only thirty foods, and since then she has learned from an allergist that in order to be thorough I should have given her at least 250 such tests.

One day I asked an assistant why he had saddled a poor shopgirl with a bill for \$100 worth of laboratory tests and special studies when from her history it was almost certain that her troubles were due purely to the unhappiness of a broken engagement. The young doctor's answer

was that he didn't expect to find anything organic but he wanted to protect his reputation, first, from possible slurs by someone who might later accuse him of a lack of thoroughness, and second, from blame if someone should, while making an extensive overhauling, find a gallstone or something. My reaction to this was that I thought it hardly honest to make a poor girl pay so heavily for insurance on her doctor's reputation. Personally, I would rather run the risk of being blamed.

ASSISTANTS FORGET THAT USELESS TESTS COST MONEY

One reason why recent medical graduates are so often thoughtless about ordering tests is that they got into the habit of doing this in their university hospital days. I remember one day going through the wards of a teaching hospital with the young professor of medicine. Proudly he picked up a folder off the end of a bed and showed me how almost every known test had been done on the patient. Knowing how put to it the dean of the school was to find money to keep the place going, I was distressed to see that all the \$200 worth of tests had been made to no purpose on a husky young laborer who had come in to have a hernia repaired. When I asked the professor what he was going to do with all these records he seemed nonplussed; he hadn't thought of that!

Sometimes when I suggest to an assistant that he cancel orders for a lot of tests which will probably not show anything, he asks, "Why not make them; haven't we the laboratory girls downstairs to do them? It will not cost the clinic anything." Oh, yes it will. If in a big institution each one of dozens of assistants orders several unnecessary tests, on perhaps 80,000 patients a year, the laboratories must be enlarged, rooms must be built, many new girls must be taken on, many more supplies must be bought, and the added expense must run into many thousands of dollars a year, most of which cannot be paid by the patients and therefore must be borne by the institution.

ORDERING MANY TESTS MIGHT BECOME A RACKET

As time goes on there is danger that the ordering of many tests may even be made into a remunerative racket. Unfortunately, "easy is the descent into hell," and the danger is that a man with laboratory and roentgenologic assistants in his office might easily convince himself that by ordering \$200 worth of tests on every patient who could afford it he was doing no more than his duty and was earning a reputation for being the most thorough and scientific physician in his community. His self-

corruption would be the easier because many of his neurotic patients would be delighted with him and would feel that they were getting just the type of complete examination that they had always wanted. One sad feature of such practice is that if it comes, it will put pressure on all the sensible, wise and kindly physicians in the community to order for each patient more tests than they feel are needed.

THE NEED FOR SEEING CLEARLY WHAT TESTS ARE FOR AND WHAT
THEY CAN AND CANNOT SHOW

What is still needed today is more thought as to what the several tests are likely to show and what they are not likely to show; also a knowledge of how to get the desired information in simpler ways. For instance, one need seldom order an estimation of basal metabolic rate because usually, by making a few simple observations, one can tell that it must be normal. If the skin is cool and dry and the pulse slow, and if there has been no loss in weight, there is not much chance that the thyroid gland is too active, and if the patient is wide-awake, keen and quick in his or her reactions, there can't be much hypothyroidism. I do not order estimations of the basal metabolic rate, as some men do, to get a general idea as to the condition of the endocrine system because I doubt if the test can be used in any such magical way.

In talking to able young medical graduates I am distressed to find that but few have been trained to think along these lines. To them an electrocardiogram, let us say, is not just a record of the voltage changes that take place as the contraction sweeps down the heart from the sinus node to the tip of the ventricle; rather, it is a bit of magic which will tell everything they need to know about the soundness and efficiency of the heart and the longevity of the patient! They do not seem to know that the electrocardiogram can be of value only in certain types of heart disease and not in others, or that a man with a perfect record can drop dead a few minutes after it is made. It does not seem to occur to them that the record need not be changed in appearance until a badly narrowed artery plugs up, and an infarct comes to deflect the course of the contraction wave.

A USEFUL SET OF TESTS TO BEGIN WITH

One of the commonest problems put up to consultants every day is that of deciding whether or not the tired "pepless" person who has perhaps been failing in health has something seriously wrong with him. In

older persons one must, of course, try to rule out the presence of cancer. When, as often happens, the patient is from out of town and wants to rush back home as soon as possible the decision has to be made quickly. In such cases I usually begin the laboratory studies with a urinalysis, estimations of hemoglobin and blood sedimentation rate, a Kline or Kahn test, a differential blood count, a roentgenogram of the chest, and, in older persons, a measurement of the blood urea. If the hemoglobin is found to be decidedly low, or if there is something suspicious about the differential count, or if the sedimentation rate is above 40 mm. in an hour, I will probably order red and white counts, and I may ask a hematologist to look over the smears for signs of toxicity or disease. When there is puzzling pain in the flank, or when the urine contains pus, red blood cells, or bacteria, I will have the kidneys studied by a urologist.

When these tests show no sign of trouble I feel that I have ruled out most of those common diseases in kidney, lung, and blood which pull men down. A normal hemoglobin tends to rule out cancer of the stomach and bowel with its constant oozing. A low blood sedimentation rate is most helpful in ruling out scattering cancer and smouldering infection but it is not infallible. It is helpful also in differentiating serious infectious arthritis from the much less dangerous fibrositis.

A high polymorphonuclear count in older persons, if persistent, points to the presence of cancer, especially in the bowel. Such cancers are always heavily infected. Because cancer of the rectosigmoid is so commonly met with in older persons, it is a good thing, when an old man is ailing, to look into this part of the bowel with the sigmoidoscope. Most carcinomas of the rectum can be felt with the finger.

When I feel the need for a thorough study of the digestive tract, I will begin by having the stools searched for signs of parasites, and the lower end of the colon examined with the sigmoidoscope. I begin with the study of the stools because for a time after the patient has taken barium, it will be practically impossible to find ova or parasites. It is impossible to find amebic cysts if the patient is taking hydrocarbon oil. Later I will have the gallbladder examined with the dye, and the stomach and colon studied roentgenologically. Finally, in an occasional case, when I feel the need for further study of the gastric mucosa, I will call in a gastroscopist. If, during the course of these studies, a clue should show up, I will follow it out. When the patient has been losing weight rapidly or has developed a sudden psychic upset or a fibrillating heart I will

want to have the basal metabolic rate estimated. If I suspect a spondylitic type of pain I may have roentgenograms made of the spine. If a woman thinks she is running a chronic fever and I cannot feel the spleen, I will have a roentgenogram made to determine the size of this organ. If there is a question as to the operability of a cancer in the stomach or bowel I will ask for a test of the liver function. In such cases a high degree of dye retention usually means that the liver is full of metastasis.

ON REFUSING TESTS TO CERTAIN PERSONS

When expense is little object to a patient, and I see that he has his heart set on having a number of probably useless tests made, I do not feel like arguing with him or thwarting him, but when a stupid hypochondriac with small earning power, or the frail psychopathic wife of a poor mechanic or clerk starts demanding one probably useless test after another, I object. I hate to impoverish people and I hate also to see so many of these persons refusing later to pay anything because, as they say, the examination didn't show what their trouble was and didn't do them any good. Actually, sometimes, it is difficult to handle such stupid people, and I feel so sure that I will later fall out with them no matter what I do to try to satisfy them, that I wish I had the sense to fall out with them before doing \$150 worth of work for which I will be neither paid nor thanked. In extreme cases I tell the man that I am so sure he will be outraged when all the tests he wants are reported negative that if he will insist on having them, he must pay for them in advance. Then we'll have no arguments or hard feelings about the matter.

THE DIFFICULTY PATIENTS NOW HAVE IN GETTING ADVICE WITHOUT TESTS

That there is something wrong with medical practice today is shown me every so often by old patients who have written saying, "I have had a little flare-up of my ulcer," or "My colon is sore again," or "My constipation is getting out of control. Will you kindly recommend some doctor in this city whom I can call on occasionally for a little advice, and to save me from having to go through another overhauling, will you please send him a report of your findings and opinion?" I comply, and soon there comes a wail from the patient to the effect that the doctor's assistant wouldn't let him in to see the chief until every test I had made had been repeated. I can speak of this frankly because in spite of everything I can do to prevent it, every so often I find one of my assistants doing this very

thing to an old patient of mine, who wanted just to talk to me for a few minutes or to report that he was doing well.

Obviously the cure for all this is more thinking. We human beings fall so easily into thoughtless routine, and it is so natural for us to go on year after year carrying out extensive labors without thinking what they are for, that we need, all of us, to stop every so often to ask, "Why are we doing this? What do we expect to accomplish? Is it necessary in this particular case and if not, why go on doing it? Why not stop?" We should all keep in mind the story of the old station employee who, as each train pulled in and stopped, walked down one side and up the other tapping each wheel with a hammer. When asked by a passenger why he did this, he said, "I don't know, sir!"

There is one more thought that comes to me at this point and that is that the conscientious physician does not saddle patients with bills for tests the results of which will not help them, but will only satisfy academic curiosity or will add to the number of a statistical series.

Chapter VIII

THE HANDLING OF THE NERVOUS PATIENT

"The art of gaining the patient's confidence is the chief element in a physician's worldly success."—ROBERT DARWIN.

"True influence over another comes not from a moment's eloquence nor from any happily chosen word, but from the accumulation of a lifetime's thoughts stored up in the eyes. And there is one thing greater than curing a malady and that is accepting a malady and sharing its acceptance."—THORNTON WILDER.

"Hesitation or doubt on the part of the doctor hangs like a cloud over the patient."—SIR JAMES MACKENZIE.

"And he spake many things unto them in parables, saying,"—Matthew 13:3.

*"Sportive and pleasant round the heart he played,
And wrapped in jest the censure he conveyed."*—Persius.

"A merry heart doeth good like a medicine."—Proverbs 17:22.

"To be esteemed one must show esteem."—BALTHASAR GRACIAN.

A woman asked her doctor how long she would be ill, and he answered that it would depend largely on the duration of the disease. Author unknown.

"Being polite means taking nothing amiss."—Chinese proverb.

"If an ass kicks you, don't kick back."—Sardinian proverb.

AS EVERY YOUNG PHYSICIAN SOON DISCOVERS, IT IS OFTEN VERY DIFFICULT TO convince a nervous or psychopathic woman that she hasn't anything physically wrong to show for all her aches and pains and feelings of fatigue. She will refuse to accept the diagnosis of a functional disturbance, and then it may be a problem even to get her out of the office in a peaceful mood. The physician may wish that, on the first day when she came in, he had had the sense to turn her away; but he didn't, and now, after having done much work on her problem, it looks as if he might not even be thanked, let alone paid. She just can't see how, without a positive

laboratory or roentgenologic finding to her name, she can still be so miserable, so exhausted, and so full of pain. Under the circumstances there is only one logical thing for her to do, and that is to start looking for another doctor who will know of more tests to make.

WHY SHOULD ONE ALWAYS EXPECT TO FIND MACROSCOPIC DISEASE?

I often say to such a woman, "Why should you be so insistent that some visible organic disease be found? Didn't you ever hear of men and women who were always ailing and sickly but who nevertheless looked well, perhaps stayed fat, and lived on into old age? Surely such persons couldn't have had any serious disease such as cancer or tuberculosis. Haven't you heard also of women who had the abdomen opened and explored several times without any significant disease being found? Surely distress and pain must often be due to poor function in the many microscopic parts of an organ or even to disturbances in the chemical functions going on in the billions of tiny cells which make up the body. An arm paralyzed by a stroke may look all right, but still it does not work. The least movement of the fingers of an arthritic person may cause great pain, and yet nothing wrong may be seen even in a roentgenogram of the hand. A muscle may ache day and night, and yet microscopic examination of a section cut out of it may show no sign of disease."

Actually, when I think of the millions of tiny places in the body where things can go wrong, the wonder to me is not that so often I cannot demonstrate any gross signs of disease but rather that I can find such disease as often as I do!

As I tell patients, there is something wrong in every person who is ill, but the essential point is that in many *it is not anything which could be demonstrated at an operation or even a necropsy*. Let us remember that when a person has headache or neuralgia no one thinks of opening up the skull to look for a cause. Actually, if they did, in most cases they wouldn't find anything wrong.

WHAT IS MEANT BY NERVOUSNESS?

In most cases the success or failure of the physician's attempts to help a person with a functional complaint will depend largely on his ability to get her to understand at the start what he means by nervousness. No matter how carefully he chooses his words, the minute he says he has not found organic disease she is likely to jump to the conclusion that he thinks she is imagining her troubles, and that she is flighty, excitable,

hysterical, or foolish. She denies all this and protests that she is calm and self-possessed and well able to meet emergencies.

When a woman strikes back at me in this way I say, "No, no, I'm sure your troubles are not imaginary; there is no question but that they are real and very trying; I am sure you are suffering, and I see no reason for blaming you for anything." Often I agree with her that she is outwardly calm, but usually I can get her to admit that *inwardly she is often tense and seething, and that she is the type of person in whom any emotion is likely to do disturbing things to several of the body organs.* This is the essential peculiarity about her. Sometimes I can mollify her by admitting that I am like her in that, under the calm, happy, and easy-going exterior which I inherited from my father, I carry the tenseness and distressing reactivity to emotion which I got from my temperamental and nervous mother. As I point out elsewhere in this book, there is no more reason why a woman should feel ashamed at having palpitation or diarrhea after a fright than that she should feel ashamed at weeping at a sad play or blushing at a compliment.

Much of the annoyance these women often show when we physicians report negative findings is due to their disappointment at not getting the type of diagnosis and treatment they want; some is due to previous "run-ins" with physicians who disliked nervous women and said so, and some is due to a self-protective reaction against criticisms which they think we or someone else will soon be uttering. Many a woman of this type must know in her heart that through unwise thinking and living she has messed up her life, and many must realize that if their trouble is functional in nature, then they must, for years, have been ruining their relatives financially without much justification. As I point out in more detail later, many of these persons must either hang onto their illness or else face an accusing conscience and an outraged family.

IT IS GOOD TO BE SOMEWHAT NEUROTIC

Often I hurry on to point out to a woman that nervousness is not necessarily a term of opprobrium. It can be taken as a compliment. Most people who have done big things in the arts and sciences have been nervous and neurotic. They had to be to sense things as keenly as they did. And if a woman is to have any vivacity and social charm she must be nervous and highly sensitive. Without these qualities she cannot be wide-awake and responsive and interested in people and in everything that is going on about her; without it her face will not be mobile and attrac-

tive, her eyes will not light up, and her conversation will not be animated. But it is just this ability to feel keenly and react strongly that commonly brings in its train fatigue and suffering.

As I said one day to an attractive but frail and hypersensitive little violinist, "What does a symphony concert do to you?" and, as I expected, she said, "It takes me into the seventh heaven, but it tears me all to pieces emotionally, and I come home a wreck." But she agreed with me that it was better to be that way than stupid and insensitive.

HYPERSENSITIVENESS

I point out to the hyper-reactive woman that she must suffer if only because she is so sensitive: sounds, smells, light, a draft, the ticking of a clock, things which are not bothersome to an ordinary person, beat in on her brain and wear her out. When she goes out for the evening, if she is to enjoy herself and not come home exhausted and perhaps with a migrainous headache, she must go to a quiet restaurant where there is no buzz of voices, no clattering of dishes, no blaring orchestra, no strong smells from the kitchen, and no bright lights. Even a few flies lighting on the food may ruin the evening for her.

One can find much about this painfulness of visual, auditory, and olfactory stimuli in the biographies of poets, musicians, writers, and other gifted, hypersensitive, or neurotic persons. As Jane Hillyer wrote after her recovery from a mental upset, "Things that I would never have noticed before cut into me like a knife: sounds, smells . . . telephones . . . and streetcars. . . ." Arthur Symons, the poet, wrote, "My operation made me horribly sensitive; sensitive to kindness, sensitive to pain, sensitive to suffering in others, sensitive to everything." Shelley complained after an illness that the blades of grass and the boughs of distant trees presented themselves to him with painful distinctness. Flaubert said, "My sensibility is sharper than a razor's edge; the creaking of a door, the face of a bourgeois, or an absurd statement sets my heart to throbbing and completely upsets me." A lovely, refined, and sensitive woman wrote me one day that she knew she was getting over a nervous breakdown if only because light no longer bruised and hurt her as it did the previous year.

Another difficulty often met with by the hypersensitive woman is that she becomes unpleasantly conscious of the workings of organs which she never knew she had before. Thus, while recovering from a postinfluenza depression, she may feel her heart beating, or she may be annoyed by the throbbing of her carotid artery where it passes near the inner ear, or

she may feel the writhing movements of her intestine, or the contractions of the little muscles in her skin. The mere effort of putting up with such sensations and not getting alarmed over them adds to the sum of the day's fatigue. I know persons who feel nauseated or sore all over when a rain storm is approaching, or who get dizzy or nauseated or feel pain in the abdomen when their limbs are massaged.

A large part of such hypersensitiveness is doubtless inherited, but in many cases some is brought on by fatigue and illness. As the layman expresses it, when he gets tired his nerves get on edge, and commonly a vicious circle is set up, since the more sensitive the nerves, the more the suffering, and the more the suffering the more sensitive the nerves. Many a woman will say that when she is tired she could shriek at the irritation caused perhaps just by some mannerism of her husband.

Until the physician has had a nervous breakdown himself he can have no conception of the fatigue that can be produced in a hypersensitive person simply by the impact on the brain of the stream of sensations which is constantly coming in from the outside world.

EXAGGERATED REFLEXES

To many patients I point out that with their exaggerated sensitiveness there go exaggerated reflexes, and I show them their strong knee jerks. In the worst cases, as I tap the patellar tendon the patient will jump or shudder. Such a person is likely to jump if the telephone rings. Perhaps the abdominal wall will be as rigid as a board, and this will tell me much of what I need to know about the patient's tenseness. A woman with such reflex irritability is bound to suffer if only because she must respond so violently to small stimuli which have little if any effect on an insensitive person.

TOO GREAT EMOTIONALISM

I point out to many nervous persons that they must suffer also because they have strong emotions which rack them violently. They are too sympathetic, or too partisan, or they get too violently outraged at things. Before the war they couldn't talk about Roosevelt without getting all upset. Some flare easily in anger, or they get too happy or too sad. In "The Story of Tschaikowsky," the countess who loved him is quoted as saying, "Yesterday I decided to play our symphony . . . and as a result I am in a terribly nervous state. I cannot play it without fire darting through my every fiber! It took twenty-four hours for me to recover."

When I ask a woman of this type if she can stand seeing a sad play she may say, "No, the tears stream down my face and I go home with a sick headache." Many a time when I have asked a temperamental woman if she could afford to get angry, she has said, "Oh no, when I get good and angry I cannot eat for a day or two."

Persons of this type are commonly so wound up after a pleasant evening with friends that they cannot sleep (see Darwin's "Life" in Chapter XIII), and they may not be able to sleep well for a night or two before they start on a trip. Some then get diarrhea, and some even get a fever and have to go to bed for a day or two. Many Jewish patients owe their illnesses to the great emotionalism which causes them to feel, as if it were in their own heart, any misfortune which comes to a member of the family.

TOO VIVID AN IMAGINATION

Sometimes I can get a nervous woman to confess that she has such a vivid imagination that she can relive old and painful experiences and can get out of them again all the original distressing reactions to grief and worry, or she can anticipate and almost live through all sorts of illnesses and disasters. If a pain comes somewhere, a horrible cancer can immediately be visualized, and if a child is late home from school he can be seen lying, mangled, on a slab at the morgue. I remember one highly jealous woman whose succession of serious illnesses proved finally to have been due to her fondness for summoning up vivid mental pictures of her husband caressing a girl to whom he had, years before, been engaged!

TOO GREAT SUGGESTIBILITY

In some cases I can get a woman to see that she has too great a suggestibility, a faculty which facilitates the acquiring of the symptoms of some disease that she has just heard of. Every physician who is suggestible will remember how, during his years in medical school, he suffered for a time with the symptoms of some of the new diseases to which he was introduced by his teachers.

I remember a business man who rushed into my office one morning in great agitation saying that his heart was failing and he was rapidly strangling to death. When I couldn't see anything wrong with him except his evident expectation of death, I suddenly got an idea and asked him if, when the distress came, he had been reading an article in the

paper in which was described the horrible end of a prominent citizen who had that morning strangled out with edema of the glottis. He blushed and admitted that his symptoms had come as he was reading that article. He then laughed at himself and went back to work.

The world is full of persons who react in this way: not always so markedly, but enough so that they often suffer. The suggestions that upset them so badly come from many sources, and I am sorry to say one of them is the doctor's thinking aloud. Another source is the prattle of "friends" who seem to love nothing better than to tell sick people of all the horrible deaths that they have known of.

The only compensation for such an easy suggestibility is that many of us human beings use it for getting well. Most of us are greatly helped for a time by taking anything out of a bottle, and a few can be helped for a while by an operation and the removal of a healthy organ. I remember a suggestible woman who came in with a pain in the right side of the abdomen. When I found that her right kidney was a bag full of pus, she told me that shortly before she saw me she had been cured for a time by the removal of a normal-appearing appendix!

NOTHING COULD BE FOUND AT AN OPERATION

Often, as I talk to nervous persons, trying to get them to see what I mean by "functional disease," I reiterate that, whatever the cause is, *it is not something that could be found and removed if a surgeon were to explore the abdomen.* Often I go on to tell of patients with indigestion and abdominal pain who were operated on several times before I saw them, without the surgeon's finding anything wrong. I may tell also of cases in which, because of death due to some accident, I was able to secure a necropsy, and even then, when I could study every abdominal organ with minute care, I could not find any cause for a long lasting pain or indigestion. As I go on to say, *this does not mean that there was no cause; irritant chemicals may have been formed in some organ to cause the pain, or the cause may have been outside the abdomen in the nerves, the spinal cord, or the brain.*

REMINDING THE PATIENT OF KNOWN EFFECTS OF EMOTION

Often, when trying to get a woman to see that there must be many physical disturbances due to emotion, I find it helpful to remind her of those disturbing manifestations of emotion with which she is conversant. She knows of blushing with shame or anger, sweating, frequent

urination or diarrhea during a college examination, a dry mouth with excitement, palpitation with fright, a lump in the throat with sorrow, a loss of appetite with worry, nausea with disgust, and fainting at the sight of blood.

In trying to convince patients that constant anxiety can cause symptoms suggesting the presence of organic disease, I often remind them of a fact which they know; namely, that acute spasms of fear can produce distressing symptoms. Why then shouldn't anxiety, which is only chronic fear, cause similar disturbances? I sometimes tell a patient of my own painful experience when, in the dread influenza year of 1918, one of my children came down with a fulminating type of pneumonia which I knew was likely to end fatally within a few days. When fear seized me it seemed as if someone were twisting my stomach until it hurt; distressing waves kept coming up the esophagus to almost strangle me, it was hard to swallow food, and I was in such distress that I could not rest. Only when the child began to show signs that she was going to conquer the infection did I get better. Shortly afterward when I saw a man who complained of symptoms similar to mine, I asked him if he wasn't worried about something. He denied it, but later I saw in the paper that he was suspected of complicity in the looting of a trust company, and was facing arrest and indictment. Then I knew that my hunch had been correct.

Sometimes I tell a patient of the great losses of weight that I often see produced by worry, homesickness, or marital infelicity. I have described some of these cases elsewhere in this book. Many a patient has to be reminded of these things several times before he can be made to admit even the possibility that the symptoms which are bothering him are functional in nature. Some of the observations described in Chapter I can also be used in getting patients to see how their symptoms could have been produced.

THE PATIENT WITH FUNCTIONAL TROUBLES CAN SUFFER GREATLY

One of the first things I try to do when talking to a nervous woman is to convince her that I have no doubt as to the reality of her sufferings, and that I see no inconsistency between the fact that she has little or no sign of organic disease and the fact that she is disabled and utterly miserable. I tell her what is true and that is that a fourth of my patients are in just such a situation.

I tell the woman also that I would rather have a broken leg than

what she has; the pain of a broken leg could be relieved by drugs, and after two months in a cast I would probably be well. But if I had a nervous breakdown, as she has, drugs would not long relieve my distress, if they relieved it at all, and two months of rest might not take me very far toward recovery.

THE SEVERITY AND CONSTANCY OF THE SYMPTOMS INDICATE A
FUNCTIONAL TROUBLE

Often when a woman argues that she must have organic disease because her sufferings are so great and so constant, my answer is that *this very severity and constancy make me almost certain that her disease is a functional one*. As I point out in the chapter on pain, the distress produced by organic disease such as peptic ulcer or gallstones is usually intermittent and controllable, while that of obscure nervous pains is often constant, every day and all day, and is not helped by drugs or vacations.

To show how natural it is for a person with a functional trouble to suffer more than does one with an organic lesion, I often tell patients the story of two women who, one day, came into my office. One was a placid old farmer's wife and the other was her daughter, a nervous woman of thirty. The mother explained that she wasn't the patient; she was not ill. To be sure, she had a large cancer of the stomach, but so long as she ate carefully this gave her no distress. It was the daughter who was in pain and seriously ill. She had been vomiting so continuously for two weeks that she was dehydrated and toxic, and I had to send her right out to the hospital for strenuous treatment. What was the trouble with her? Nothing but fear; she had started to vomit the minute she had heard of the mother's cancer! *Here, then, were two women: one with the worst possible organic disease of the stomach and the other with nothing organically wrong; the one comfortable and not complaining, the other in pain and seriously ill.*

I remember being impressed by a similar contrast in the reactions and behavior of two other patients whom I saw one day, one right after the other. One was a man who had been dragged in by his wife because he was walking the floor night after night with the pain of jejunal ulcer. I couldn't get him to stay to have anything done about it because he said he could easily stand the distress. In the next room I found a neurotic, worrisome woman who I knew had nothing organically wrong in her abdomen if only because it had recently been explored by her home surgeon; yet she, being hypersensitive and depressed, was suffering so

much that she said life was unbearable, and she would do away with herself if I didn't give her some relief.

PATIENTS WITH FUNCTIONAL TROUBLES WOULD SEEM TO BE SUFFERING
BECAUSE THEY SO GLADLY ACCEPT PAINFUL TREATMENTS

One observation that has always made me feel that persons with functional troubles must suffer greatly is that they so gladly accept painful examinations and treatments, and some almost beg surgeons to operate on them. For months on end some will tolerate the discomfort of having tubes passed down into the stomach and duodenum or into the bladder or up into a kidney pelvis. My impression is that the patients with organic disease are less inclined to submit to such painful procedures. At least, they do not welcome them as do the worrisome persons with no demonstrable disease.

Oftentimes this willingness to undergo painful treatments is due to a panicky desire to escape the horrible fate which these persons think is hanging over them. Some psychopaths are so convinced that eradicable disease in the abdomen is producing toxins which are damaging the brain that it is no wonder they welcome any measure that they think will avert insanity. Others are so made that they have to go ahead with an operation once it is suggested to them because they cannot get any mental peace until it is done. One such woman said to me after I had been trying to convince her that all she had in her breasts was a little mastitis, "Go ahead and take the darn things off anyway; I can't stand worrying about them!"

One group of persons who spend much of their income on doctoring are the medically meticulous who want to keep their body always in perfect condition. They are like the man who takes his car to the shop the minute he hears the least squeak or rattle. Still another group consists of those persons who feel that health is a precarious thing that one must always be watching over and striving for. It never occurs to them that most persons stay healthy without ever seeing a doctor, without stuffing themselves with vitamins, and without putting iodine on every scratch.

FUNCTIONAL TROUBLES CAN BE CRIPPLING

Patients with functional troubles often say to me, "But, doctor, I am so ill that I *must* have something terribly wrong with me. I can't believe that all my suffering and loss of weight and strength could be due to

nerves." To such persons I sometimes tell the story of the Jewish manufacturer who came complaining of abdominal distress, indigestion, headache, loss of weight, impotence, and such fatigue and weakness that for a year he had been unable to work. He was a dejected, sick-looking man who had been all over in a vain search for health.

What I learned was that he had been robust and healthy until a year before, when, within a few weeks, he had gone to pieces. The important detail of the story, which I drew from him with difficulty, was that, after years of listening to his complaints about her barrenness, his wife one day dragged him to a physician to see if the fault might not be his. When it turned out that he did have an aspermia, due to an old epididymitis, he was much cast down, and he began going the rounds of urologists demanding that something be done for him. Unfortunately, he finally found a man who would treat him, because with this, he became even more upset than he was before. Impotence developed, and this so preyed on his mind that he became unable to sleep, and he lost his former good digestion. Then a physician diagnosed gastric ulcer, and what with dieting and worrying about cancer, and later going through the strain of an appendectomy, he lost much weight and strength. Almost from the start he was too ill to take care of his business.

On getting this story, I said to the man, "See here, you were perfectly well until you began to worry about the harmless aspermia. All your troubles followed that. You could be just as well today as you were a year ago if you would only stop worrying and go back to eating everything. There is nothing wrong with your stomach or your sexual apparatus. They are both inhibited by worry. Throw away your medicines and go to eating everything you want." It took some persuasion to get him started, but when he found that a square meal did not hurt him, he was delighted, and soon he was laughing about his foolishness. Rapidly he regained his weight, he regained his libido and potentia, and in a few weeks he was back at work.

EFFECTS OF CONCENTRATING ATTENTION ON AN ORGAN

I have another story that helps some patients to see that the more they worry about some organ such as the stomach or heart, and the more they concentrate their agonized attention on it, the more likely it is to function poorly or to burn and hurt. The patient I tell about was a sensitive, somewhat neurotic, middle-aged university professor, a widower, who one evening was seduced by a "flossy" widow. Soon thereafter the terrify-

ing thought came to him that a woman who was so loose sexually doubtless had had other contacts, and might well have gotten gonorrhea which she could pass on to him.

After a sleepless night his urethra began to burn and hurt so violently that he could think of little else. When he came to me for advice I sent him to a urologist, who could find no sign of urethritis. Because the man continued in great distress, going every half-hour to urinate and to examine his meatus for signs of discharge, the urologist told him that if he did not develop a urethritis within six days he could consider himself safe. In spite of all the patient's desire to stop worrying, he continued to suffer acutely until the sixth day, when he laughed, called himself a "nut," and went home well.

This man's experience made me wonder how often the pain that some patients feel in heart or stomach is brought on or kept up or made worse by the intensity with which they concentrate their attention on the supposedly diseased organ. If mental concentration can have such distressing effects on a urethra why not on a heart or stomach or colon?

SPREADING OF ENERGY AWAY FROM AN OVERLY ACTIVE BRAIN

I find it helps many tense nervous persons to be made to see that most of their symptoms are due to a spread of energy away from an overly active brain. Thus, when doing some task such as writing, or grappling with some worrisome problem, tense persons often pass large quantities of watery urine every half-hour, perspiration may run out of the right armpit or off the hands, the heart may race, the stomach may secrete large quantities of highly acid gastric juice, and the colon may secrete much mucus and excrete much gas. The muscles will become tensed, the teeth will be clenched, the brow furrowed, the rectum will tighten up to produce constipation or pain, there may be tics and unnecessary movements of hands and face, and the victim may stand or pace the floor when he or she should be sitting and trying to rest. Such persons are likely to smoke one cigarette after another, or they will chew gum violently, or they will keep fiddling with something because they cannot keep still.

NERVES PLAYING TRICKS

One of the most useful conceptions I have found with which to help those many persons who suffer with sudden panicky or jittery spells is that of centers at the base of the brain getting out of control and sending out a sort of storm along the nerves which upsets the functions of per-

fectly normal organs. I describe these storms in more detail in Chapter XVI. They act not only directly through the autonomic nerves but indirectly by pouring into the blood and tissues a number of disturbing hormones. As I say to the victims of these storms, their unruly nerves are playing alarming tricks on them.

Especially when dealing with the woman who has a nervous hyperthermia or who is suffering with the hot flushes of the menopause, I point to the thermostat on the wall of my room and tell her that there are many tiny thermostats something like that at the base of her brain, and some have gotten out of balance. As a result, there will for a time be wild swings up and down in the heat-regulating mechanism of her body. When I can get the sufferer to accept my view that a normal heart, stomach and bowel are being upset by centers thrown out of balance, and when I can get her to see how the alarming storms can come so suddenly, she is usually reassured and says that if that is all the matter with her she can stand the occasional discomforts. Now that she knows what is going on, and is satisfied that the storms will not bring disaster, she will not get so panicky.

This conception of unruly nerve centers which are causing an outpouring of disturbing hormones gives great comfort to patients also by freeing them from a sense of guilt in regard to their nervous symptoms. As I say to a woman with such troubles, "When the storm comes down your sympathetic nerves, and epinephrine pours out into your blood, you can no more be blamed for getting jittery than you can be blamed for getting jittery when the dentist injects epinephrine along with the novocain which he uses to numb your jaw."

EXPLAIN GREAT FATIGUE

One of the biggest problems in handling many nervous patients is that of explaining why they are so painfully tired and why no organic cause can be found for this trouble. As I show in the chapter on nervous breakdowns, the mild, easily understandable, and easily curable types of fatigue which come at the end of a hard day are due to overwork, strain, or insomnia. The other type which comes without apparent cause in the morning is due usually to a poor nervous heredity, or to wasteful and worrisome thinking, or to boredom and a lack of interest in life and work. I have seen such fatigue disappear rapidly when a woman found a job that delighted her or a man who would love her acceptably. Many a time when I myself have been so weary I wondered how I could finish

my day's work, a telegram or letter full of good news, or an interview with an interesting patient has swept all the fatigue away and left me feeling full of health and energy. I am convinced that in some cases a sense of painful exhaustion is due to the inheritance, from an ancestor with melancholia, of part of his or her curse.

Often, when a woman keeps insisting that all her troubles must be due to some abnormality of gallbladder or appendix or colon, I point out that *there is no known disease of the digestive tract which a well-nourished, healthy-looking person like her could have had for years that could produce her feelings of utter exhaustion.* Even if she had gallstones as big as hen's eggs they would not cause the symptoms that she has. I feel sure that we physicians do not use this argument as often or as forcibly as we should.

WHY "REST" DIDN'T HELP

Commonly, when I tell a woman she cannot hope to get well without a long rest she will say, "No, you are all wrong; I have been resting for months and I am no better." And my answer is that she probably wasn't resting; it is true that she was not working, and she may even have been in bed, but she wasn't resting. Perhaps I turn to her husband and ask if she was resting, and he sadly shakes his head. No, her mind was racing on, hour after hour, fretting at many things, worrying over many things, and torturing her in many ways. Probably the best way in which I can show what these women are doing when they are supposed to be resting is to include here some extracts from letters written me by an interesting and unusual woman who, fortunately, has the ability to express in vivid words the thoughts which, during a nervous breakdown, kept her mind in turmoil. She craved to shut her mind off, but until she found interesting war work she couldn't. If she only could have done so earlier in her illness, I think she would have been well in a few weeks.

EXCERPTS FROM LETTERS SHOWING WHY WOMEN OFTEN DO NOT PROFIT FROM "REST"

With many furies choking me today I have had a relapse. I now need all my strength just to fight these horrors. I can't even try to think of what to do without getting the feeling of being torn into useless little bits. . . .

I am never going to be happy until I do something creative. I want to make something out of my mind, but before I can do that I must beat off many crazy twists in my thinking. Some days I feel so brilliant that my mind seems to be sending up fireworks. I want to be a useful part of civilization, a thoughtful writer, but I only seem to want to write. A few weeks ago I got started

writing, but overdid, getting out some 5,000 words at a sitting, and since then I haven't been able to do anything.

I am much less violent of spirit today, but as a result I seem to be split up into a thousand tiny violences. I am too intense. I drank my coffee this morning as if it were the first and last cup of coffee I ever expect to drink.

. . . If I can't quiet down I fear I will fly apart or off into space. Oh, for something to keep my jittering spirit and intellect still, much as a cast would keep a leg still when it has been broken. If you could only get something like that you could cure us wild folk. . . . You say, "Hoard your energies." I can't. The minute I build up a tiny reserve of fuel I refuse to make just a tiny campfire with it, but I must throw on every log I've got and make the biggest blaze that I can make. And in a way I am right. With a tiny fire I can see only shadows, but a big one shows me for a moment the trees and the mountains, and that is good for me, even if the fire does go out quickly to leave me again in utter blackness. . . .

Must I cramp my wildnesses forever? Must I put a little Victorian doily of sensible admonitions around the fierce Picasso-tensities of my mind? Must I always be saying, "Relax, don't get excited. Don't think about anything. Maintain harmony, peace and love." Oh, Doctor dear, those are curds when I want rich cream. Or perhaps I must imitate a money changer, saying to myself, you can have just so much fun, and you must pay just so much for it.

. . . Sometimes for a couple of days I feel exhausted, like a mouse carrying around a leaden corset. My bones seem to increase a thousandfold in weight, and all day I must lie down. These days are exasperating. They come usually after some when I have had a spurt of energy: when I have felt full of vitality. Then I can't sit still; and then I talk, Oh Lord, how I talk. . . .

Think of going around some days knowing each minute and second that it is only by keeping occupied with simple, brain-unneeded activities that one can keep in leash those vicious horrors that are lying just outside the eggshell-thin surface of one's mind. . . . They are horrors like seeing oneself lying paralyzed with only one's brain alive in a coffin of a body or seeing oneself buried alive.

Those friends and relatives who talk to me about self-control and of thinking right, they seem to me like enemies. I am crouched in my trench and my guns are jammed. In terror I watch their approach, and I fear a possible surrender to them.

Oh, Lord, how I long to be a wife who can make her husband live more richly than he would without her. How I would like to be free from this irrational body of mine. How shall I, being irrational and with an inadequate nervous system, cure myself? And oh, how shall I prevent emotional outbursts? I will fly asunder with the effort. Sometimes I wonder, shall I say to myself,

"Stop all this stalling and go out and try a hard day's work"? Shall I force myself to try? . . .

At times I am appallingly restless. . . . I am weighed down with supersensitiveness and a lack of reserve strength. I am unable to make vital decisions and to think fluently. At times I am frozen into the gray Antarctic of myself. . . . At times life persecutes me. I try to force myself to return to living, and I become leaden with exhaustion. I go into a fury over little things and have no capacity to tackle big ones. I am overly conscious of myself and hate being shut in always with that self. I am sick at heart, but I pretend to have courage. . . .

Obviously, of course, no woman is likely to get into such an unhappy state without the help of an unusual nervous inheritance. This particular woman has reason to be tired because, since childhood, she has lived intensely, blowing in her energies in a riotous way, savoring life to the utmost, overdoing in work and play, practicing the piano many hours a day, and sleeping only a few at night. Doubtless, she wouldn't and couldn't have done all this if she hadn't had an unusually dynamic and interesting and cyclothymic personality, like her gifted grandmother before her.

THE TIRED BODY MUST BREAK SOMEWHERE

I find it helpful sometimes when talking to tired patients to point out to them that when any bit of machinery such as a human body undergoes prolonged and excessive strain it eventually must break somewhere, or some part of it must cry out for relief, just as a dry bearing must squeak for a time before it gets hot and melts. And if a hundred persons are overworked until they break down, they will break in different places. In one person, the first sign of strain will be headache, in another indigestion, while in others it may be insomnia, lack of concentration, backache, or anginoid pain. With this modern hectic life of ours it is well that each person learn what his first symptom of fatigue is so that, instead of going on through the red light to disaster, he can stop in time and rest.

Oftentimes I remind a patient that civilization has gotten too strenuous and too fast-moving, especially for the type of person who is easily flustered and worn down by turmoil. He or she has the type of nervous system which would have been adequate for life in a village a hundred years ago, but which will not stand the New York or the Washington of today.

WHY DID THE NERVES BREAK DOWN WHEN THEY DID?

Often, after talking awhile, I can get a woman to admit that she had a nervous breakdown coming to her because of months or years of over-work and strain. Often also I can get her to see that some extra precipitating factor came in, such as an attack of influenza, a painful accident, a series of operations, the death of a loved one, or worry over a divorce or the loss of money. But when I cannot find such a precipitating factor, I am likely to get into difficulties because the woman will keep asking why she went to pieces when she did. In many such cases I suspect that the cause would be obvious if she would only be frank and tell me of psychic turmoils that bear on the problem. I know that sometimes when she will not tell me she later tells a psychiatrist, or I learn what the trouble was from some relative, friend, or home physician. Typical is the case in which I finally learned that a sweet, lovely girl's long illness began after she met a scoundrel who made love to her and then got away with all her savings. I doubt if she would have had a number of useless operations if she could only have brought herself to tell her physicians of the misery she had been through.

In many cases I feel sure that an unexplained nervous breakdown comes when it does simply because of the working out of a psychopathic inheritance. In some cases a depression will come suddenly out of a clear sky, and in other cases, a breakdown comes perhaps because for weeks or months the person has been tortured by crazy thoughts and impulses.

A constitutionally inadequate woman often refuses to accept my opinion in regard to her inborn tendency to poor health because, as she says, she was strong and well and happy until she started teaching, or until she had her first child. My answer then is that women of her type commonly do just this sort of thing, and one can easily see why. They are much like a defective tire which does not blow out until it has gone a few thousand miles; as one would expect, it has enough strength to keep running for awhile.

Often I have to point out to a woman that for years she lived unwisely, gradually earning a nervous breakdown. Perhaps starting out, like the woman from whose letters I quoted some pages back, with a brilliant but poorly balanced nervous system, she went through high school and college with only half the amount of sleep and rest she should have had. Perhaps besides her studies she did newspaper work and took part in plays and other campus activities; perhaps later she had some wild and

upsetting love affairs, or perhaps she practiced piano or violin for many hours a day, and smoked and drank to excess. Finally, after she had for years overdrawn recklessly on the bank of health, the manager of this bank, if I may complete the simile, called in her loans and threw her into bankruptcy.

This bankruptcy would have been hard enough to work out if the woman could soon have started paying back something each day on her debt to outraged nature, but unfortunately she couldn't. As in most cases of this type, she went on fretting and worrying; she got several worrisome and conflicting diagnoses; she underwent painful treatments and operations, and, as a result, a year later she was more tired than she was when her nerves first broke.

But even in those cases in which the woman is fortunate enough to be started immediately on a rest cure, she commonly does not rest. She continues to fret. Usually she is sure that the cause of her trouble is still to be found, and often she is worrying day and night over finances, wondering if she can get well before her money gives out, wondering where she can go after she leaves the hospital, or wondering if it wouldn't be best to commit suicide and be well out of a hopeless situation. With such thoughts torturing her, and with headache, tenseness, pains, and insomnia tearing her down, how can she rest? She is probably doing as much or more harm to her brain as she lies in the hospital bed than she did when she was working in office, school, or home.

Many tired persons, knowing that they feel worse when idle, not only keep at the job as long as they can but actually make work for themselves. Many a woman, when much in need of peace and rest, violently cleans house or does the washing or takes down curtains so as to get away from her thoughts. Doubtless occupational therapy of this type can help at the time, but when gone at too strenuously or constantly it is like the stiff drink which the drunkard takes to steady himself when he is close to an attack of delirium tremens; it may help for a moment, but in the long run it harms.

As I often say to a jittery woman, it would doubtless take her some time to get well even if she could turn off her mind completely as she would a radio that had been blaring too loudly, but this she cannot do no matter how hard she tries, and that is why her recovery must come slowly. Her situation would be bad enough, also, if she had enough money so that a long rest could be taken without worry as to finances, or if somewhere a comfortable haven could be found where she could

have peace, understanding, sympathy, helpful guidance and, better yet, love and tenderness.

Many a time I have found that the woman who didn't get much out of a so-called rest in the home of a relative was exhausted just by the effort needed each day to keep from flying out in anger against someone in the house who did not conceal his or her conviction that the illness was all due to foolishness and wrong thinking. Actually, of course, the relatives often have good reason for being exasperated at the patient when they remember some of the unwise things she did as she was working her way into the nervous breakdown.

In some cases I learned later that the reason why a supposed rest cure did not work was that the woman spent all her time worrying over what her husband was up to while she was away from home.

IF THE PHYSICIAN COULD ONLY LIVE FOR A DAY IN THE PATIENT'S HOME

Often a woman with a nervous breakdown will keep asking me, "But why should I be so completely exhausted? I see no reason for it; I have an easy life, a lovely home, good servants, a devoted husband, and nothing in the world to worry about." And my answer usually is that I do not know what her problems and besetting sins are, but I strongly suspect that often she is using her brain uneconomically and to no good purpose. I suspect that if I could live in her home for only a day I could show her where she is wasting her energies. I might find that she is a perfectionist and a fussbudget who wears herself out trying to make her home too clean and orderly. Perhaps she is trying to make over an inarticulate, forgetful husband into a lover, or a normally noisy and rowdy youngster into a prim Little Lord Fauntleroy. Perhaps she can never make up her mind, or she wastes energy over painful emotions, reliving unhappy experiences, and conjuring up worries. Perhaps she indulges in all-night orgies of what I call squirrel-cage thinking, in which she keeps turning over a worrisome subject without ever arriving at any solution. Perhaps she goes into the children's room a dozen times at night to make sure that they are all right, or she is torn by jealous worries over her prosaic husband.

If I lived in the woman's house I would probably be saying every little while, "Look out, there you go putting too much emotion into something that does not warrant it," or "There you are, spending \$10 worth of energy trying to make a 10-cent decision." I often tell such patients that I can work hard from 8 A.M. until 5 P.M. without fatigue if I have

no inner or outer frictions—if I am happy and at peace with myself and everyone else—if I go at my work without any feelings of tension or anxiety, and if I do not have any conflict with anyone. But just let some worry or annoyance come which I cannot throw off quickly, or some unpleasant conflict with someone, or let me get depressed over having to send away a lovely young woman with an inoperable cancer of the breast, and I go home tired.

Obviously, it is not work but painful emotion that does most to wear us men and women down. Is it any wonder, then, that those persons who are always tense, always full of inner conflicts, always being torn by riots of emotion, or always getting into clashes with others are all-in most of the time?

Actually, on several occasions when I did happen to go into a woman's home for a few hours I was impressed with the amount of medically helpful information I quickly picked up, information which the patient had concealed from me during her visits to my office. In the home I soon sensed such things as tension between the woman and her mother-in-law or her husband, or I saw constant conflict with a problem child, or I saw how overly particular the woman was about her house and how upset she got over every little thing that did not go just to suit her when she was entertaining, or I sensed her distress and embarrassment over the fact that her husband was uncouth or poorly educated. In one home the woman's indigestion turned out to be due to her mother's insistence on coming to the table when she had a horrible big rodent ulcer on her face. This took away all my patient's appetite and caused her great anxiety because she feared her children might "catch it."

MUCH ILLNESS IS A PRICE PAID FOR CIVILIZATION

Often I point out to a woman that most of her symptoms, such as headache, constipation, insomnia, and fatigue, which she wants me to cure quickly and permanently, are due to the strains of the abnormal type of life she must lead, and to the fact that she has to spend her days and part of her nights working with her brain. *To a large extent her illness is the price she must pay for her civilized, unrestful, and unhygienic way of life.*

I am sure the brains of most men and women were not designed for this constant strain; certainly primitive man never worked so steadily and intensively with his brain as we city-dwellers do. He never worked with two telephones on his desk. Actually, if thousands of our patients could go onto farms and ranches and work out of doors, using their muscles

more than their brains, I think they would soon be well. But since they can't do this but *must go on living the abnormal life of rush and turmoil which produced their disease*, they must not expect the physician to work any miracle of healing. Interestingly, in thousands of cases the patients who travel from a distance to some medical center lose their symptoms before they arrive just because they have gotten a little rest and relaxation. And shortly after they return to the strain of home or office, back come the feelings of fatigue, the insomnia, the indigestion, and the pain.

I sometimes tell of my admiration for the wisdom of a man whom I found running a bus-stop station in a beautiful spot in the mountains of the West. Noting education and refinement in his speech and demeanor, I asked him if he wasn't a college man. "Yes," he said, "I am a graduate of Harvard and for a time I practiced law in New York City, but my nervous system and my stomach couldn't stand the gaff; so I quit. I think it better to be poor and well out here than to be rich and ailing in New York." There is many a sickly man and woman working long hours in some city office today who, I am sure, could find health in this way, and only in this way, by changing to a less trying outdoor job. Unfortunately, few can find such a job, few are trained for it, and few would accept if they were offered it.

PATIENTS "CAUGHT IN A TRAP"

Occasionally I have to point out to a woman that she cannot expect me to cure her so long as she cannot get out of the unhappy trap in which she is caught. She must be reasonable. If she will not give up supporting her parents she cannot marry the young man who now does not want to wait for her any longer, and if she worries about that she will not sleep well; she will be tired, and she will not digest well. Or, if in order to live she must remain chained to a tiring and uncongenial job, how can anyone cure her fatigue? I discuss these problems in more detail elsewhere in this book.

CONSTITUTIONAL INADEQUACY

It usually takes tact and skill to get inadequates to see why they will probably never be strong and well. First I try to get a woman of this type to admit that she never was strong. Perhaps she'll admit that years before, when her husband was courting her, she couldn't go out much, she couldn't dance, and she couldn't stay out late. Perhaps I can get her to admit also that her mother before her was always ailing, and perhaps sev-

eral aunts and sisters were always going to the doctor and submitting to operations.

Often I tell these people that the only way I could really help them would be to begin with a different set of grandparents. Often, also, when they hope an operation will cure them I say there is no operation that will change a greyhound or a Pomeranian into a bulldog, and that is the sort of transformation they want. The only hope I can give them is that much of the best work of the world has been done by frail, sickly persons who learned to work within their means of strength. Often I tell them about Darwin and all he accomplished by living within his means of strength. (Much more about the problem of caring for the constitutionally inadequate type of person will be found in Chapter XIII.)

**THE PROBLEM OF EXPLAINING HOW AN ABDOMINAL PAIN CAN
BE WITHOUT VISIBLE CAUSE**

Usually, when the physician has decided that a pain is nervous in origin, the most difficult problem that faces him is that of convincing the patient that there can be such a thing as a pain for which no visible cause can be found. I often begin by asking if any member of the family has headaches, and usually I find that someone has. Then I ask if that person ever went to a surgeon to have the skull opened in a search for the cause of the pain, and the answer is, "Why no, everyone knew it was just a headache." "Well, then," I say, "why can't you have an ache of that type in your abdomen or your chest, due purely to irritation of a nerve?" Often a woman will know that fatigue, tension, and nerve strain are likely to give her a headache, and then I tell her that her backache and stomach-ache can be produced in the same way.

Often when dealing with a patient with that common type of pain in the thoracic or abdominal wall which is due to chronic spondylitis, with the associated neuritis and fibrositis, I show the films of the spine and point to the exostoses about the intervertebral joints. Then the patient can easily see how nerves emerging at those points might be involved in the inflammatory process.

PAINS DUE TO PSYCHIC SHOCK

It helps sometimes to remind patients that abdominal pain can come suddenly to a person who has just received a psychic shock. Usually they have seen examples of this sort of thing. Thus, many persons say that a bit of bad news will strike them in the pit of the stomach or will tie their

stomach in knots. I know I have experienced such pain on several occasions, and I have heard my children complain of it at times, as when they were frightened. I am sure that many of the abdominal distresses we physicians hear of are due to fear, and worry, which is a protracted form of fear.

Interesting was the experience of a sensitive woman who suddenly got a pain in her abdomen when told by a colleague of mine that, because of her son's illness, she would have to remain in Rochester for a few weeks longer than she had expected. After a fortnight this pain stopped suddenly when she happened to read in a book that one can get a "tension" pain from feeling rebellious. She remembered then that when her pain first came she was in the doctor's office, outwardly acquiescent to what she had to do, but inwardly rebellious at having to stay when she was all set to go home.

Often the best argument I can advance against exploring the abdomen for the cause of a pain is that I know the syndrome well; I have heard the story many times, and I am almost certain the distress is "functional" in nature, if only because I have seen so many patients of this type operated on without benefit to them. Usually the patient wants to know if she hasn't adhesions that should be operated on, and my answer is that adhesions usually soon pull out or loosen up; they rarely seem to produce symptoms, and where I work we never operate for them unless they are producing intermittent intestinal obstruction.

Often I can point out to a woman that her pain is out in her abdominal wall, or it is not connected with any part of her digestive cycle and therefore is probably not arising in her digestive tract, or it is felt only in the lower half of her abdomen and therefore cannot be due to the supposed duodenal ulcer or cholecystitis which was diagnosed elsewhere. Perhaps I can tell her that her pain is typically that of a sore colon.

THE TEMPTATION TO GIVE DIAGNOSTIC PLACEBOS

Because it is such a difficult, ticklish, time-consuming, and often thankless and unremunerative task to get a nervous or psychopathic woman to understand why she is ill, and to see why she cannot promptly be made over into a well person, a great temptation is daily put on us physicians to side-step the whole problem and to get the woman out of the office quickly and in a happy mood, simply by giving her a diagnostic placebo—some nice-sounding word or set of words such as ptosis, low blood pressure, colitis, or spastic colon, which will satisfy her and fill her with hope.

She may even go out singing the new doctor's praises because at last, as she says, someone has found the cause of all her troubles, the hidden cause that so many others hunted for and missed.

But the taking of this easy way out is unfortunate for all concerned. Often indulged in, this practice will tend to make the physician lazy and a bit dishonest; it will stop his mental growth, and it will never bring real help to the woman. Worse than that, it will probably do her harm. Before she received a diagnosis of, let us say, "colitis," she had a number of vague fears which did not do her much harm, but after she was told that all her discomforts were arising in a deformed and diseased colon, she had a specific fear centered in one organ, a fear that upset her greatly and caused her to spend much money on futile treatments.

Of course, when we physicians make a diagnosis of the type I have just described, we do not make it with our tongue in our cheek or consciously to get the patient quickly out of the office. Usually, like the patient, we too are so desperate for a diagnosis of organic disease that we grasp at the first straw that comes along, and we really hope that the woman will be better with a ptosis belt or some "shots" of something or other. But as we grow in experience and wisdom we come to see that the relief of ptosis or the raising of a slightly lowered basal metabolic rate never can make over a frail, psychopathic girl into the well, husky person she wants to be, and then gradually we learn to spend more time studying these unfortunate persons, and we try harder to give them a real understanding of the constitutional and hereditary nature of their weaknesses. We try to teach them to help themselves, and to work their way back to a certain amount of health.

EVEN THE YOUNG PHYSICIAN SHOULD AVOID PLACEBOS IN DIAGNOSIS

Occasionally after a lecture in which I have stressed the unwisdom of giving a placebo of diagnosis to a patient with a psychoneurosis, and the need for insisting instead that no *significant* organic disease has been found, a few young physicians have protested that older men may perhaps be able to get away with this sort of thing, but they cannot. They fear that if one of them were to admit to a woman that he couldn't find any organic disease in her abdomen this would only be regarded as a sign of incompetence and failure, and he would be dismissed.

My answer to such objections is that thirty years ago, when I was young, I adopted the practice of telling all my patients the diagnostic truth as I saw it, and never thereafter have I had cause to regret this be-

havior. I have never hesitated even to say I couldn't make a diagnosis when I couldn't. Intelligent patients usually seemed satisfied, and often they said they would stick by me until I did know what was the matter. Some, of course, left dissatisfied, but for one of those I lost, I gained many who remained devoted friends.

Curiously, the very first patient to come in when I opened my first office taught me that even a young man can afford to be honest in his diagnosing. This patient was a tense, nervous, constitutionally inadequate woman with a "difficult" husband and a typical sore colon which flared up whenever she underwent any psychic strain. I explained her problem to her then much as I would today, and she seemed to acquiesce. But in six weeks she returned just to tell me for my own good that someone else had been more discerning than I. He had seen with the roentgen ray that she had a retrocecal appendix; he had removed it, and she was well. When I thanked her and told her that I was sorry I had failed her, she was mollified, and left in a friendly mood. In a month or two she was back with the same old pain in her bowel.

Later, again, she came in to scold me because a urologist had made much of her low right kidney and had stitched it up in place. She was well, and she thought I should know of my ignorance. Again I softened her wrath by being sorry, and grateful for the information. A month later she was back reviling the urologist because when she had to show his big bill to her choleric husband, she had one of the worst mucous colics of her career, and all her pains came back! After another adventure with a surgeon who removed her gallbladder without curing her, the woman came back, apologetic, to say that at last she was willing to admit that from the first I had been right about her. She said she had learned her lesson, and after that, for years, she remained a devoted friend.

THE PATIENT WHO WANTS TO DIRECT HIS OWN EXAMINATION

Particularly difficult to handle often are those persons who, after much traveling about to medical centers and much reading up on their disease, have acquired decided views as to what they have wrong with them and how they should be studied. Some, of course, do know a lot about their disease and I learn things from them. Some are a bit exasperating, but I seldom argue with them, and usually I let them have what tests they want. Many I grip to me as friends by complimenting them on the really remarkable amount of medical information that they have picked up along the way. Others are much pleased to see that I appreciate the information

they give me about the causes, symptoms, and life history of their disease.

If I ever do feel that I should argue with one of these men who thinks he knows enough so that he can oppose his judgment to mine, I tell him good naturally that his behavior reminds me of my own years ago when the self-starter on a car was a new invention. One morning mine wouldn't turn the engine over. Finding that the lights burned all right I decided that the battery must be working and the trouble must be in the starting motor. At the repair shop the foreman annoyed me by refusing to even look at the car or listen to my arguments. He said, "You have a dead cell; go and see the battery man." And I, just like a patient who knows little about the complicated workings of his body, kept protesting that the battery must be all right because the lights burned. "No, don't argue with me," said the foreman impatiently, "go to the battery man." Finally I went, expecting to prove the shop man wrong, but he wasn't; the battery had a dead cell. The foreman knew the syndrome because he had run into it many a time before. I had never heard of it. As I often say to patients, "Can't you see that after nearly forty years of studying medicine I should be able to recognize some syndromes at a glance, and certainly I ought to know a little more about medicine than you do?"

ORGANIC DISEASE THAT HAS NOTHING TO DO WITH THE SYMPTOMS

One of the most important ideas I often have to impress on a patient is that he can have an organic disease, and yet this may have nothing to do with his symptoms. As usual, this idea can best be driven home with the help of stories. The most striking one I know is that of the frail, nervous little minister who, years ago, consulted me about migrainous headaches which came every Sunday when he had to preach. I promptly told him what was wrong and said that no matter what we might find during the overhauling, it would have nothing to do with producing his attacks. But he was sure I was wrong, and oh, how he gloated over me when I found a small carcinomatous polyp in his rectum. As he said, "You see, you were wrong." But the growth was removed and years later the man returned to admit that he was the same frail, easily fatigued, inadequate, and migrainous person he had always been.

As I say to patients, then, one can find and remove from the body of a nervous person *even a cancer*, and yet not improve the general health a particle. How silly it is, then, to hope to perform miracles of rejuvenation by removing from constitutionally ailing persons such little things as teeth or tonsils, a cyst in the floor of an antrum, or a small uterine myoma!

Another story I sometimes tell is that of a weepy Jewess of fifty who came complaining of symptoms which indicated a menopausal depression. As so often happens, at the final interview the patient was disappointed because, as she wailed, I "hadn't found anything the matter with her." Actually, as I told her, that had not been my difficulty: I had found a profusion of organic troubles. She had, first, a basal metabolic rate averaging around + 25 per cent, but because her symptoms were not those of hyperthyroidism and because a thyroidectomy done the year before at home had not helped her, my colleagues working in this field did not think it advisable to remove any more of the gland. Second, she had small stones lodged in the calices of both kidneys, but because they were not injuring the kidney function or producing symptoms, the urologists saw no reason for removing them. Third, she had two cholesterol stones floating around in a functioning gallbladder, but since she had no symptoms of cholecystitis, all of us who saw her advised against operation. Fourth, she had a myomatous uterus, but because it was not producing symptoms no one could see any sense in removing it. Fifth, she had a high blood pressure, but since this did not seem to be producing symptoms I did not feel inclined to treat it strenuously. Sixth, she was in the menopause, but since much treatment at home with ovarian hormones had not helped her, I had little desire to give her more. Seventh, she had an irritable bladder with a urethritis grade 1, but the urologists knew that the more this was treated the worse it probably would get; so we left it alone.

Now, what was really her trouble? It was that she had discovered that her husband, "fed up" after years of listening to her constant complaining, had got himself a cheerful mistress. I knew of no medicine or operation to cure this; hence my lack of enthusiasm for starting any treatment.

A NEED FOR PATIENCE WITH THE SICK

Even when a physician sees that a woman's behavior is somewhat unreasonable or hysterical, he must remember that she may be acting that way only because she is ill. When she was well she may have been a pleasant and very different person. Some patients, it is true, have no sense, but the physician must remember that this, too, is an illness and a grievous one at that!

The sick must never be expected to behave as perfectly as do the well, and no matter how exasperating they may get, allowances must always be made for them. Actually, as Ross has pointed out, if ever a patient, without provocation, acts in so "ornery," exasperating, unreasonable, and in-

sulting a way that the physician feels outraged and wants to throw him right out of the office, he should stop immediately and say to himself, "Hold on, this man is insane or he would not be acting in this way." Actually, I think all of the few patients who, during the years, have succeeded in angering me were insane, and I was ashamed of myself later for not having realized it sooner.

We physicians have little excuse for uncontrolled or irritable behavior. We who are well must be understanding and patient, even when we are tired and worn out from overwork and lack of rest and sleep. Our patients have a right to expect us to be calm and judicious. Were one of us ever to act peevishly or childishly, he would promptly lose his usefulness as a physician.

NEED FOR ANSWERING ALL QUESTIONS AND OBJECTIONS

Often if a woman is to be really helped, the physician must keep answering her questions and meeting her objections patiently until her doubts are all cleared away and she is reassured as to the nature of her trouble, and ready not only to put up with things that cannot be helped, but to start mending her psychic ways.

The patient's objections must always be faced and answered honestly if only because sometimes they are such as to require a revision of the physician's diagnosis. Let us say that he has decided that an abdominal pain is due to adhesions that followed an appendectomy, but just as the woman is going out the door she says, "But doctor, I had this pain for years before I had the operation." Obviously, then, the doctor's diagnosis is wrong; the patient cannot be expected to be satisfied with it, and nothing can be gained from trying to cram it down her throat. There is only one thing to do and that is to sit down and go all over the story again.

Need for Explaining Things. We physicians must never get annoyed or angry or on our high horse when a patient refuses to accept unquestioningly our diagnosis or our proposed treatment. Especially when we are dealing with a patient who has traveled much, has seen many physicians and has read much on his disease, we must expect doubts and objections, and we must answer them honestly, patiently, and logically. The physician need only put himself in the patient's place to see that he too would have to be pretty well "sold" before he would submit to yet another operation, or another expensive or long course of treatment, especially if it was to be of a type that had already been tried and found wanting.

Unfortunately, many physicians soon lose patience with the woman

who keeps saying, "Yes but," and they feel that they can't be bothered with her. In that case, they ought to dismiss her politely before any animosity has been stirred up. Actually, if a physician has the patience to deal courteously with these people, to answer painstakingly and in simple speech all of their objections, to admit wherein they are right, to point out wherein they are probably wrong, and to show them clearly why they should do certain things, he will often convince them, help them, and make them his friends.

If the physician is patient, pleasant, and logical in his explanation of the situation, he may find no difficulty in getting even a good Christian Scientist to consent to a badly needed operation. I remember one with an ulcer obstructing the pylorus, who had sworn he would never be operated on. For months he had been kept awake night after night with pain and the sloshing around of fluid in his stomach. I said:

"Of course, you don't have to be operated on. I wouldn't try to force you to do anything you do not wish to do. But, look, if you knew that you had a piece of tape tied around the outlet of your stomach so that the food couldn't get through, you wouldn't think of trying to treat it with faith or medicine or a diet, would you? No, you would insist that someone go right in and cut that tape. Well, to all intents and purposes you have a bit of tape tied around the outlet of your stomach. See on this film how your stomach has become dilated with fluid which cannot pass onward. See how much weight you have lost because that band of tape stands between your body and the food it needs. Wouldn't it be sensible to cut it?"

"Yes," said the man, "I see the problem now. Get me a surgeon and tell me what hospital to go to."

This kind of dispassionate explaining, in which short simple words are used to paint verbal pictures, will work well in practically every type of case. I feel that, especially when a patient's co-operation is essential to the success of a treatment, he should be given full information about his problem. This is particularly true when there is a question of operating or carrying out any other treatment that involves a risk. The man should be told what the risk is, and what the chances are for and against his getting a good result. Certainly, his will be the disaster if the treatment does not work well. Often I let the patient help in deciding whether or not to have an operation because he knows how much pain or discomfort he has or how well or how poorly he can bear it.

I feel that I should give many patients enough of an understanding of their illness so that much of the time they can take care of themselves and

can work their way back to health. Actually, in the case of patients with chronic diseases I like to have leaflets or booklets to hand out—booklets of the type that diabetics use with much profit. I know that usually I haven't the time to give instructions as thoroughly as I should, and the patients cannot possibly remember or keep straight all I have said to them during an interview. If any reader doubts this, just let him, while going through a strange city, ask his way, and then see if he can remember correctly all the turns to the right and the left that he was told to make.

NEED FOR GENTLENESS IN COMBATING THE IDEAS OF PATIENTS

I have known able physicians who handled patients well up to a certain point and then fell down badly, in some cases so badly that they never could hold much of a practice. Their difficulty was that they were too brusque and uncompromising in their attacks on the medical beliefs of their patients. Let us say that a woman remarked that chiropractic treatments once cured her child of poliomyelitis or that the taking of some capsules containing dried adrenal glands cured her low blood pressure, or that a few grains of bismuth once raised Cain with her and kept her awake all night. If the doctor had only smiled and kept his doubts to himself all would have been well, but unfortunately these statements so aroused his combativeness that he got into a fight with the woman and lost a good patient.

If he had been wiser and more self-controlled he would not have felt it incumbent on him to break down the patient's faith in chiropractic or in certain types of endocrine therapy, and he would have stuck to the business in hand. If he had felt he must discuss the apparent bad effects of the bismuth, he should have been careful not to question the patient's statement of fact, but in a kindly and friendly way he should have suggested that at the time there might have been some other cause for the distressing symptoms.

The physician with a short temper must be particularly on his guard not to flare out at the patient who questions his statements of fact or opinion, or who tries to argue some medical point, or refuses a proffered treatment.

When dealing with dyspeptics and food-faddists I do not attack their pet ideas with any violence, and I do not try to demolish many at a time. Often I say to a dyspeptic old school teacher who is sure that most foods are poisonous to her, "During the next two days let us test those few which you think agree with you." Then, if they fail to produce distress, I exhort her to experiment with one or two new ones a day to see which are

bad and which good. If, as commonly happens, while eating her favorite foods she still is distressed, I can perhaps get her to try a more liberal diet to see if she is any worse on that than on her usual narrow rations. Since, with such a procedure, the patient and I are experimenting together, no animosity is stirred up, and we generally remain friends.

It is dangerous to try to demolish brusquely a patient's lifelong belief that he has a torpid liver or an "excess of acid in his system," or a terribly acid stomach. I may show him the laboratory reports that indicate normal liver function, normal carbon dioxide combining power, and normal gastric acidity, but if the parting with a life-long affliction and topic of conversation is evidently going to distress him, I let him keep his pet disease. I think it wise also, whenever possible, to let the patient have his own way in the matter of taking any harmless remedy which he thinks does him good. In Chapter IX I deal more at length with the problem of explaining tactfully why a diagnosis made elsewhere is not being accepted as adequate to explain the symptoms complained of.

THE QUALITIES DESIRABLE IN THE PHYSICIAN

Obviously the physician who expects to help nervous persons and to start them on the road to health must strive to become a good teacher and a good influencer and leader of men. He should learn to talk well and interestingly so as never to bore, and he should be forceful in his speech. Because sick persons are usually poor listeners he should be brief.

The physician should learn to explain medical matters in simple Anglo-Saxon speech because he will be talking to lay persons and often to ignorant ones with a poor vocabulary and no knowledge of anatomy. *Particularly helpful is the use of homely similes and stories rather than of abstract and technical statements.* Helpful also is the drawing of little diagrams to show how the gallbladder fills and empties or how gastroenterostomy is performed.

The wise young physician will learn all he can of the pathologic physiology of the several organs of the body because with such knowledge he can explain symptoms more logically and convincingly. Finally, a physician should be such a friendly, genial, frank, human, tactful, and sympathetic sort of man that most patients will immediately like him. If they like him and feel that he likes them, they will be pretty sure to do what he wants them to do, and they will not get angry if he has to preach to them a bit, or to ask them to mend their ways, or to tell them that he cannot work a cure.

Sometimes when I have to admonish a patient I prepare the way by

telling of a time when I playfully paddled my little daughter and apparently did it a little harder than I thought. She looked at me, so puzzled, and asked, "Were dose loving 'panks, Daddy?" I assured her that they were, and similarly I assure my patient that any censure I may have to utter is expressed in utmost friendliness.

NEED FOR STUDYING THE TECHNIC OF HANDLING PATIENTS

Although much of a physician's success in handling nervous and psychoneurotic patients must always depend on his natural gifts of leadership and friendliness and clear exposition, much will depend also on the goodness or poorness of the technic which he develops along the way. During his years of medical practice he should constantly be studying how to talk to patients; he should be learning which words and phrases to avoid if he is not to give offense, and which phrases and explanations to use in order to convince and please.

Unfortunately, most of this technic must probably be learned by the individual through trial and error; a little can be learned from watching the successes and failures of confreres, and a little can be learned from books. Curiously, there is little on this all-important topic to be found in books or journals. Few men seem to have been able to write about it, and few have thought to try. That skill in talking to patients is highly important is shown by the fact that the physician who cannot or will not learn the technic is likely never to build much of a practice, no matter how much medicine he knows, or how much skill he develops as a surgeon.

What little I know about influencing patients I have learned through the years by watching to see which arguments convinced and influenced and which did not. As I have talked to people day after day I have watched their faces for signs of interest, understanding, acquiescence, and satisfaction; or of boredom, annoyance, disbelief, unfriendliness, or failure to grasp what I was saying. I suspect that often, at the close of an interview, I should have asked which arguments helped and convinced and which only bored.

ORDEAL OF GOING TO A NEW PHYSICIAN

Doubtless we physicians should stop now and then to think how it must feel to be a patient, and having thought, then to resolve to make the path ever smoother for those many suppliants who each day come anxiously into our presence. As a sweet, gentle woman once said to me, "Did it ever

occur to you what a fearsome adventure it is for a shy, sensitive, and easily frightened person like me to go and meet a new doctor? Will he be friendly, human, sympathetic, and easy to talk to; or will he be unfriendly, reticent, aloof, impersonal, pompous, gruff, curt, or hard to talk to? Will he quickly put me at ease and then let me tell my long story, or will he be hurried and impatient and quick to shut me up? If I tell him about my allergic sensitiveness to milk, will he tell me it is all in my head, or if I beg to be excused from having my stomach pumped, will he snap, 'I'm running things here'? After searching his face will I be able to bring myself to tell him about the embarrassing sexual situation that has brought me so much unhappiness, and if I fail to hold back the tears, will he be kindly, or will he be impatient and annoyed?"

NEED FOR COURTESY

It is most unfortunate when a physician gets the idea that because of his peculiar relationship to his patients, a relationship in which he is, in a way, the captain of the ship, he can dispense with that courtesy which all men are supposed to use when dealing with their fellows. There is no question that we physicians often have reason to be exasperated with certain persons, as when they complain bitterly about little things, or cry out before they are hurt, or oppose their untutored ideas about diagnosis and treatment to ours, or try to dictate what we are to do with them, or cheat and, let us say, eat candy when on an antidiabetic diet, but still I feel we should always be patient and courteous with them.

If we have to reprove we can do it sometimes in a pleasant and bantering way so as to "save the patient's face." If there is one thing in this world that we humans all dislike and never forget, it is being "bawled out" or humiliated, or given "the lie direct," especially before others. Hence it is that we physicians should try never to give a patient the idea that we refuse to accept his or her statement of fact. Let us always admit the fact, even when we doubt it, and then, if necessary, question the patient's interpretation or understanding of it.

Let us say that, on morning rounds, the physician is told by a woman that she didn't sleep a wink all night. How foolish it would be to tell her curtly that the record shows that she was asleep every time the nurse looked in or that she quieted promptly on being given a hypodermic injection of plain water. And how unwise it would be to say this before a group of interns and residents. No, the wise physician would first be sympathetic, and then he would suggest that the woman be not frightened

about the insomnia because resting quietly in bed does the nerves almost as much good as does sleep.

DANGERS IN NOT ACCEPTING A STORY OF PAIN

It is a curious fact that when we physicians do not understand why a woman has pain, when we cannot make a diagnosis and cannot give relief, and when really we should be most kindly and sympathetic and apologetic for our inability to help, we are most tempted to wash our hands of all responsibility and to clear our conscience of even the need for being sympathetic by calling the woman a neurotic and by telling her that she ought to "forget it" and go back to work or get a hobby or have a baby!

One good reason why we physicians should never show signs of unbelief in a woman's story or lack of sympathy for her suffering is that every so often the subsequent course of the disease shows that there was plenty of cause for the misery and the pain. I call to mind a fine, intelligent woman who was seized one day with severe pain which bored through from the epigastrium to her back. Years before there had been one or two bouts of hunger pain, but with the onset of the severe symptoms these episodes were forgotten and never mentioned. For months the woman had to be kept under the influence of opiates. She was examined repeatedly, but no sign of disease could ever be found. Then a physician accused her of malingering; he put her into a sanatorium for the insane and left her to writhe night after night in pain. Finally she escaped and went to other physicians, who found a duodenal ulcer penetrating deeply into the pancreas, and soon cured her with an operation. As she said afterward, she and her family could understand and forgive the failure to make a difficult diagnosis, but they would never condone the one man's unkindness and his refusal to accept the story of her suffering.

THE WORRIED PATIENT MAY REALLY BE ILL

It must always be remembered also that it is just possible that the reason a man is so apprehensive and frightened is that actually there is something decidedly wrong inside his body which is whispering to him that the hand of Death is on his shoulder. I have known persons who said they were going to die when it looked as if there was no reason for their fear, and yet they went ahead and died. I remember a big husky-looking young man who was treated contemptuously by many physicians because he had suddenly become frantically afraid of death. It looked like a bad case of

the jitters, but actually the man had an encephalitic virus at work in his brain, and none of us who saw him recognized this fact until he had an acute flare-up and died. I was glad then that although I had not been able to make the diagnosis or help him, at least I had always felt and expressed sympathy for him. Once I asked him why he kept coming back to me when I hadn't been able to help him, and his answer was, "You are sorry for me; most of the others want to give me a swift kick."

THE PATIENT SHOULD "ALWAYS BE RIGHT"

I have often been impressed by the importance of an idea that has been used in the building of some of America's greatest businesses, namely, that "the customer is always right." As everyone knows, this means that if, let us say, a woman wants to return a bit of merchandise which the claims' department sees was not bought in the store, they will think it better business to give her the credit than to tell her, in effect, that she is a liar and a cheat. If business men have found that this sort of practice pays in the long run, we in the medical profession would doubtless find it a good policy too.

I learned much about what I should never do to patients when, one day, I took a "sick" camera to a photographic shop to have a defective spring replaced. After having had several films spoiled by the defect, it was decidedly annoying to have a young clerk snap at me that there was nothing the matter with the mechanism. All he could logically have said, and he should have said that apologetically, was that he couldn't see where the trouble was. He should never have questioned my statement of fact that the camera had not been working properly. Actually, when I insisted on calling the shop foreman he promptly saw what was wrong and fixed it.

Another interesting experience that taught me much took place years ago when I moved into a new laboratory. Immediately I began to notice the odor of illuminating gas. I called the engineer of the building who went over the cocks and changed one which he thought might be leaking. For a while the odor was less troublesome, and then it came back in force. Again the engineer went over the pipes and thought he found a leak. Again there was a period of improvement and again the smell returned. During the next few months I called the engineer half a dozen times. He, a heavy smoker, could never smell any gas so he had to accept my word that it was present.

Often I stood the annoyance rather than call the man because I feared

he was thinking that I was just a fussy person with a hypersensitive nose and a psychopathic fear of gas. I watched him closely for any signs of disbelief in the reality of my complaints, but he was a gentleman, and his only reaction seemed to be one of regret that he couldn't be of service to me. Then one day, with the finding and fixing of a crack in a pipe, my troubles were over, and I felt that glow of satisfaction that comes to the woman long dubbed a "neuro" when the surgeon hands her a bottle of stones removed the day before from her gallbladder. The close analogy between this experience of mine and that of many patients will, I think, be obvious.

Usually in cases in which I suspect hysteria, to protect myself and the patient, I get the help of an able neurologist who, with his methods of examination and his wide experience, is usually able to be far surer of the diagnosis than I can be. He protects me not only from trying to treat with psychotherapy an early case of disseminated sclerosis, but also from sending in for operation a girl with a pain of psychic origin.

NEED FOR KINDLINESS

Few things are more helpful in the practice of medicine or more appreciated by patients than kindness. It so facilitates every dealing the physician has with his patients, and it so helps him to encourage and cure those who are troubled and worried and frightened. Often he will have to make mistakes in diagnosis; often he will have to fail in his attempts at treatment, and then, if he has been kindly, honest, and sympathetic, if he has examined carefully, done the best he knew how, and called in good consultants, he will have nothing to fear in the way of blame. Usually he will retain the good will and even the friendship of the patient and the family.

I have never forgotten the answer that a rancher gave me one day when, looking at the ankylosed and badly deformed elbow of his daughter, I asked if he did not sometimes feel bitter against the man who had set it so badly. "No," he said, "that was done by old Doc up country. My wife and I know now that he should never have left the arm in a cast for weeks, and we know that with such a dangerous fracture he should have sent us to the city for expert help, but Doc did the best he knew how; he was devoted to the little girl, and when he took the cast off and found what he had done, he was as heart-broken as we were. We couldn't hurt him any worse than he was hurt already, so we never said a word about it."

ON ACKNOWLEDGING MISTAKES

Incidentally, when a physician makes a mistake, as he sometimes must (the only man who can think he makes no mistakes is the one who never sees a necropsy or operation on his patients, or who never hears of what someone else discovers after they leave him), the only sensible thing to do is to admit it quickly and freely, and to express regret. As I say to patients when they write to tell me that I missed a diagnosis, I really am grateful to them for having let me know because only in this way can I go on learning. Even when I doubt if the appendix removed was the cause of the trouble, I express regret that I could not have helped the patient, and I say that infallibility in diagnosis is something that I can never even aspire unto. I write in this vein because I like to do it and not just because the practice has brought many of these persons back to me as friends. Certainly few things can so lower a physician in the estimation of his friends and patients as his refusal to face or admit the perfectly pardonable fact that he missed, let us say, a small toxic goiter in a woman with a bad heart. How silly it would be to try to brazen the thing out when the previously prostrated woman is now, after her thyroidectomy, running around well.

NEED FOR AVOIDING ANY SHOW OF DISLIKE FOR A PATIENT

Occasionally as I look over a history written by an intern I find there some sarcastic statement to the effect, perhaps, that the patient enjoys her illness and loves to talk about it; and I am distressed because it is so evident that my young assistant disliked the woman and felt contemptuous of her. I hate to see this sort of thing because I so fear that the man's hostile attitude must have shown in his face and speech, and must have distressed and antagonized and perhaps angered the patient. I know also that a man who will do this sort of thing will never be able to handle nervous patients well. Worse yet, he will make many a diagnostic mistake because when he does not take any stock in a patient's story of suffering, he is likely to be careless about the examination and thereby to overlook some serious disease.

I remember once getting a letter from a young physician telling about a patient who was coming to consult me on account of a big loss in weight. The doctor said that he had become so disgusted with the man's craven fear of death that after the routine tests and a roentgenologic examination of the stomach had shown nothing, he had given the fellow a good scold-

ing and had thrust him out of the office. Actually, it turned out that the unfortunate man had good reason to be frightened and jittery, first, because some one had told him that he had a cancer of the stomach, and second, because he had a highly toxic substernal goiter! The doctor could, of course, have easily found the goiter if he hadn't taken such a dislike to the man that he didn't really try to find what was the matter with him.

Incidentally, it is dangerous, especially around a large institution where patients can look through their histories, to write sarcastic, derogatory, or libelous statements into the record. I remember a case in which a politician with an influence in the state's courts, having found contemptuous remarks about himself in his history, took the sheets home with him when he left the hospital. To get them back his doctor's attorneys meekly handed over \$10,000; they did not dare let a jury see that record.

NEED FOR REALLY LIKING PATIENTS

Since most of us are poor actors, the only sure way of getting our patients to feel that we are friendly and sympathetic is to be friendly and sympathetic. As Beatrice Ayer Patton has said, to the three well-known little monkeys who "see no evil, hear no evil, and speak no evil" there should be added a fourth who *feels no evil toward his fellows*. He holds the key to the virtues of the other three. Without this virtue of kindness we physicians will often fail; with it we will usually succeed.

To those young physicians who were not born with a liking for their fellow men and who do not make friends easily I can only say that if they will take the trouble to draw out even their most unpleasant patients, if they will study them a little more, and come closer to them, they will almost always find something to like and admire.

I remember a meek, bald-headed little bachelor who, at the age of fifty-three years, came with the request that I examine him and assay his fitness for marriage. I thought him a poor specimen of humanity until his brother-in-law told me his story, and then I came to like and respect him as he deserved to be respected. Thirty-eight years before I met him, the illness of his father had thrown upon his narrow shoulders the heavy burden of supporting a good-sized family. Faithfully through the years he devoted all of his small earnings to keeping the home together. After a time he buried his father, then his mother, and then, one by one he supplied trousseaux for his sisters until, the week before he came to see me, the last one was married off. Then, and then only, did he begin to think of marriage for himself. I could go on to tell many such stories to

show that we must always be charitable if only because we do not know what adverse winds have beaten upon and warped the soul of the person who is sitting on the other side of the desk.

THE PHYSICIAN WHO IS TOO HEALTHY IS HANDICAPPED

Often a physician does not mean to be unkind to nervous patients; it is just because he is so strong and healthy that he cannot imagine how anyone without organic disease could be so jittery, so hypersensitive, so fearful, and so upset. The minute he sees a woman a bit hysterical, or hears her story of unjustifiable worry he is annoyed; he becomes impatient, and he is inclined to scold and perhaps revile. Every man who is handicapped in this way would do well to put up a card in his waiting room saying, "Nervous persons should not apply here because I do not like them, I do not believe they are ill, and hence I am not likely even to treat them courteously."

I sometimes wish that every physician of this type would some day suffer a nervous breakdown just severe enough so that he could learn how real and how distressing nervous symptoms are, and how embarrassing it is to go to a physician, ill and disabled, but with nothing objective to substantiate one's claims of suffering.

Plato said that no one could be a good physician unless he had suffered from the disease that he was attempting to cure. Certainly my experience years ago with a postinfluenza! fatigue state was worth all the distress it cost me. It gave me so much more understanding for and sympathy with nervous persons that I can now help them much more easily than I could before.

FEELING ONE'S WAY

One of the needs of the physician who hopes to deal successfully with nervous patients, and particularly with the somewhat hostile, critical, much traveled, or psychopathic ones, is an ability to keep sensing as he talks the type of response that he is getting. He must constantly be on the watch for signs of interest, acquiescence, disbelief, antagonism, or annoyance. If he sees that inadvertently he has given alarm, he must stop to reassure; if he has preached a little too pointedly and has caused resentment, he must stop to soften his words and to express sympathy; if he has failed to make things clear, he must try again with simpler speech; if the patient is hedging on certain questions or is lying, the physician should suspect it, and if he has touched some long-hidden sore, he should note

the signs of pain because tactful questioning can then uncover the real cause of the disease. If he is antagonizing the patient, he must sense it and must try another tack, or must call in someone else, and if the patient is becoming fatigued he must quickly terminate the interview.

Time and again I have been led directly to the cause of a neurosis by noting the way in which a woman answered a certain question, or the way in which, while giving the answer she shot a glance at her husband, or the way in which her chin quivered and she started tearing at her gloves.

The physician who is inclined to "kid" patients and to be jovial and familiar with them is in particular need of a sixth sense to tell him when he is "getting by with it" and when he is not. Some physicians have the personality to do this sort of thing, while others who try to imitate them have not, and there are many patients so reserved or so lacking in a sense of humor that no sensible person would ever think of taking liberties with them. Whenever he is in any doubt, the young physician should play safe by being gentlemanly and dignified. One should never touch psychopathic or reserved persons on the arm or slap them on the back because so many keenly resent such contacts. The young physician should know that he should never be familiar with older persons or persons high in the social scale.

I remember a reserved, schizoid type of woman who cracked up psychologically after an operation. She told me that the trouble started the day when, after examining her on the table, the surgeon stood talking to her with his hand on her thigh. This so outraged her and so caused her to dislike the man that when her family forced her to have the operation done by him she wouldn't get well, partly through spite!

UNWISDOM OF TELLING THE PATIENT INSTEAD OF ASKING HIM

As I read the writings of some Freudians, and as patients tell me of their experiences, I am sometimes impressed with the unwisdom of trying to *tell* the patient what his motives and thoughts are. To my untutored mind it seems much better to *ask* him what he is thinking, what influences affect him, and if he knows why he has done certain foolish things. Certainly what little I know about the mental processes of the sick I have learned in this way.

I love the story that a well-dressed, nice-looking woman told me years ago about a certain internist whom she had consulted. After finding nothing organically wrong, he jumped to the conclusion that she was one of

those childless, pampered, and purposeless well-to-do women who idle about the home half the day and play bridge the other half. Accordingly, he gave her a scolding and said, "What you need is to get more interest and excitement in life. You must get out more often in the open air." She didn't argue but paid her bill and left. As she said to me later, "I didn't bother to explain that I am the wife of a rum-runner. I go out in the car with him night after night, holding the machine gun, and lending dignity to the outfit!"

WRONGNESS OF GOING AHEAD WITH AN OVERHAULING WHILE THE
PATIENT IS BEGGING FOR RELIEF FROM PAIN

A while ago I saw a patient who had hiccupped day and night for ten days until he was exhausted. He was good and sore at a medical institution where, instead of treatment, he was given a complete overhauling. He begged everyone who examined him for some medicine, but everyone said, "Wait until you get your diagnosis." When it came, all he learned was that all the tests were negative. He then went to another famous institution, where all the young man who took charge of him could think of was to start making all the tests over again. Wisely, he fled! The other day I heard from an old patient who, when she overworks, suffers with what look like gallstone colics. Although she carries with her detailed reports of several overhaulings, one cholecystectomy, and two surgical explorations of her common duct, when she falls ill with an acute attack and enters a hospital to get some relief from the terrible pain, she says she usually gets only what she protests she does not want and cannot afford, and that is a complete medical examination. Surely this is not a sensible way of practicing medicine: as always, more thinking is needed.

DANGERS OF TALKING TOO MUCH TO PATIENTS

If the physician is to avoid upsetting, alarming, or badly frightening his nervous patients, he must learn often to keep his own counsel. One of the worst things he can do is to think aloud, especially when, in making a differential diagnosis, he goes over in his mind all the awful diseases the patient might have. He must remember that once he has put a fearsome thought into a worrisome patient's mind, he may have to talk for hours in an effort to get it out, and *then* he may not succeed.

Usually it is wiser and kindlier not to tell patients about every little deviation from normal that shows up during their examination; they are better off for not knowing they have a slight heart murmur, old pleuritic

adhesions, a cyst in the floor of an antrum, a calcified pineal body, torsion or calcification of the thoracic aorta, a long stomach, a low lying or spastic colon, a few diverticula of the colon, a few slurrings in the electrocardiogram, or an inverted T wave in lead III. One may tell a worrisome woman about these changes and then go on to explain that they are of no significance so far as her illness is concerned, but once she has learned about them, she may go on to worry herself sick over them, and to spend hundreds of dollars searching for some physician who will try to correct them for her.

Unfortunately, many of us physicians, myself included, often feel compelled to mention little abnormalities in order to protect our reputation. If I do not tell an extremely worrisome patient that he has a slight heart murmur and the physicians who see him later do, he may decide that I was careless or incompetent, and my reputation with him and his family and friends may be injured; but if I do tell him of the murmur, even while assuring him that he has an excellent cardiac reserve and nothing to worry about, I may turn him into a pulse-feeling invalid. Hence it is that in most cases I prefer to take chances with my reputation rather than with the patient's health. It would seem to be less selfish, and in actual practice it has worked well enough.

Chapter IX

THE PROBLEM OF COMBATING DISTURBING DIAGNOSES PREVIOUSLY MADE

"A diagnosis is not possible in every instance. Frankly to confess ignorance is often wiser than to beat about the bush with a hypothetical diagnosis."—
SIR WILLIAM OSLER.

"Many were not ill at all, and might never have become so, had they not consulted me!"—AXEL MUNTHE, *The Story of San Michele*.

"Accustom thy tongue to say, 'I know not!'"—The Talmud.

"The man who confesses his ignorance shows it once; he who tries to conceal it shows it many times."—Japanese proverb.

"Do not think yourself so large as to deem others small."—CONFUCIUS.

"Who ever saw one physician approve of another's prescription without taking something away or adding something to it?"—MICHEL DE MONTAIGNE.

ONE OF THE MOST DIFFICULT PROBLEMS IN THE HANDLING OF PATIENTS SUFFERING with constitutional inadequacy and various types of neurosis or psychoneurosis is that of explaining why good physicians, recently consulted, made an apparently erroneous or unimportant diagnosis of colitis, spastic colon, ptosis, adhesions, intestinal kinks, angina pectoris, chronic appendicitis, gastritis, endocrine dysfunction, hypocalcemia, low blood pressure, hypothyroidism, mild Addison's disease, "poison somewhere in the system," brucellosis, or infection with streptococci or dysentery bacilli. Just to tell the patient that at the moment he hasn't any sign of the disease that has just been diagnosed elsewhere is not likely to satisfy him or to leave him convinced and reassured. All such a contradiction is likely to do is to leave him puzzled and confused. He cannot tell whom to believe because all doctors look pretty much alike to him. One might think that the opinion of, let us say, a distinguished professor of medicine

at some great university would impress him more than that of a chiropractor, but I have seen many cases in which it didn't.

Often the main reason why a patient with a neurosis goes to a consultant in a distant city is because he has become upset and confused over differences in opinion among his local medical advisers. I remember a man who traveled a long distance because in his home city one physician diagnosed appendicitis, another cholecystitis, and a third peptic ulcer, and all ordered an operation. The man felt that at least two out of the three must be wrong, but which two they were he couldn't tell. The Jewish patient with an anxiety neurosis is particularly likely to keep traveling from one clinic to another, hoping that some day he will get a run of three opinions all alike! He could doubtless get this unanimity much sooner than he usually does if only we physicians, when we believe that all of a patient's troubles are due to nervousness, would dare more often to say so, positively, repeatedly, and without any reservation.

NEED FOR REPEATING TESTS WHEN THE RESULTS DO NOT FIT WITH THE HISTORY
OR OTHER FINDINGS

One of the greatest needs in American medical practice today is for a wide dissemination of the idea that a test should always be repeated when the report does not fit with the history or other findings, or when the figure obtained is near the limits of normal. Sometimes the test must be repeated even when it seems to fit with the findings. Thus, I remember getting back from the basal metabolic laboratory a report of + 39 per cent in the case of a jittery man with a nervous breakdown. At first glance it looked as if the diagnostic problem was nicely solved, but the man's skin was cool and he hadn't lost weight; so I was not satisfied. Fortunately I wasn't; because the next two estimations came out + 2 and - 2 per cent. Then the man confessed that with his tendency to claustrophobia he had had a bad attack of the "let-me-outs" during the first test.

Every week I see patients who could have been spared much worry and expense if their physicians had only had it hammered into them at college that they must never base an important diagnosis on one borderline laboratory report. Thus, every so often I see a woman who for months has been treated ineffectually with intravenous injections of *calcium* because one, and only one, blood analysis showed perhaps 8.8 mg. per 100 c.c. When, in such cases, I have the estimation repeated several times the figures practically always come out within normal limits.

Every week I see thin, nervous women who are being treated for *myxedema* because one estimate of the basal metabolic rate was reported as — 15 per cent. If only because the giving of desiccated thyroid substance usually makes these women more nervous than they were before, my impression is that this is what Henry Plummer called "a low rate not due to hypothyroidism," and that it is normal for the average thin, frail woman. When I have three tests run on the woman they may come out — 17, — 8, and — 10 per cent. Evidently, then, the thyroid gland is functioning normally enough. Certainly there must be some range of normal for all tests, and at the Mayo Clinic we look on any reading from — 15 to + 15 as probably normal.

THERE ARE VARIATIONS IN ALL MEASUREMENTS MADE ON NORMAL PERSONS

Today the medical consultant must constantly be reminding both physicians and patients of the existence of a range of normal in all measurements of human structure and function. Often, in order to make patients see why I cannot get excited over a blood pressure of 98 mm. or a blood sugar of 75 mg. I point out that I once had working for me a little cook who stood 4 feet 8 inches, and a big yard man who stood 6 feet 5 inches. With all this great difference in size, they were both normal and unusually healthy persons.

I tell worried patients that one of the reasons why today so many diagnoses are being made which cannot really account for the symptoms is that we physicians haven't on our desks information as to how widely the several body measurements can vary in health. Never having had statistical training in college, most of us do not think of the great need for getting such information. We know that the average blood calcium is about 10 mg. per 100 c.c., but few of us know if a report of 8.5 mg. should be ignored as within the range of normal or if it should occasion some concern. The sad feature is that so few of us ever think of having the test repeated before we tell the patient about it or start treatment to correct it.

We know that a normal blood pressure for a young man or woman is likely to be about 120 mm. of mercury, but how few of us have ever seen the extensive statistics which show that pressures around 100 mm. are perfectly normal, and actually indicative of a long life. Because of this lack of knowledge, many a physician today, when he finds a pressure of 98 mm., alarms the patient and immediately starts treating him for *low blood pressure*.

HYPERINSULINISM

A diagnosis recently popular was that of low blood sugar supposedly due to hyperinsulinism. Consultants still are seeing persons who, on the basis of one report of a fasting blood sugar around 70 mg., were told that all their feelings of fatigue and weakness and dizziness were due to *hyperinsulinism*. Before reassuring these persons the physician must first get several readings, all of which will usually be found to lie within the range of normal. Then he must explain that the diagnosis of hyperinsulinism was for a time a popular one, and actually their physician made it because he was so up-to-date and progressive. But, busy as he is all day and part of the night, he couldn't know that recently, students of the subject have learned that in cases of real hyperinsulinism the symptoms must be at their worst in the morning before breakfast, when, after the longest fast of the day, the blood sugar must be at its lowest ebb. In the patients with supposed hyperinsulinism, the symptoms come at any time of the day, and often shortly after a meal. The person may feel better and stronger after taking some food, coffee, or "pop" in the middle of the morning and afternoon, but many persons do this when hungry, so it does not mean much. The idea that fatigue states are due to a low blood sugar around 80 mg. was demolished by Rynearson and his colleagues when, on trying to produce the symptoms of hypoglycemia in themselves, they had to lower the blood sugar to a level of from 30 to 50 mg. before the typical weakness and mental confusion came.

"COLITIS"

Many a time when I have told a worried woman that I could see no sign of disease in her colon, she has asked with some annoyance, "Well, then, why did several well-known internists in my state tell me I had colitis?" And I had to explain that she probably didn't notice that they used the adjective "mucous" before the "colitis." I told her that if, like a djinn in the "Arabian Nights," I could summon those internists before us, I was sure they would all agree with me that there was no ulceration or inflammation in her colon, and that it was just being upset by her nerves or by irritant substances in her diet.

I thought also that after seeing how much anxiety and unnecessary expense they inadvertently had caused her they would agree with me that it is unwise to call by the same name two totally different diseases, one a neurosis and the other a destructive and commonly fatal disease of

the large bowel. Finally I admitted that I could not blame them much for doing this because the force of habit being what it is, I myself, with all my dislike for the word colitis, as used to describe a normal but nervously upset colon, sometimes forget and commit the sin I decry.

PTOSIS

When, as often happens, I have to tell a woman that I cannot accept the diagnosis of ptosis as adequate to explain all her indigestion and weakness and pain, I explain that most of us physicians were brought up on old anatomic illustrations which showed the stomach and bowel in the position in which they usually are in persons who have died while lying supine in bed. About 1915, when, in this country, vertical roentgenoscopes began to come into use, physicians were astounded to see how long a stomach can be (it never really is *dropped* because the cardia never comes away from the diaphragm), and how low in the pelvis the colon usually descends when a thin person *stands up*.

At first I, too, thought this variation in position must represent disease, but when I found it in perhaps 75 per cent of athletic and healthy men and women I saw that the trouble must be that the old standards of normal were wrong, and I promptly lost interest in the supposed abnormality. Some physicians, however, still feel that it is an abnormality and one that can produce symptoms, and they have a perfect right to their opinion. However, after twenty-five years of watching ptosis belts, prescribed by others, going into the ash-can because of their failure to relieve symptoms, I have no faith in this type of treatment, and I never pay any attention to the position of the stomach or colon in the abdomen. Where I work the roentgenologists never mention ptosis in their reports, and the clinicians do not care to have them do so.

The intestine is a tube in which the contents do not flow by gravity but are pushed along by muscular action; hence it is hard to see how the position of a particular segment of gut in the abdomen can make any difference in its mechanical functioning. Some physicians who write about feces weighing down segments of gut or having difficulty in going up over kinks seem never to have looked in a toilet bowl to see that feces float. Feces have about the same specific gravity as has the gut; so gut and feces all float in the abdominal cavity together like clothes in a washtub full of water.

Years ago, when I first encountered "ptosis" in patients I used to prescribe exercises to strengthen the abdominal wall, but after finding

some professional athletes with the colon and the lower end of the stomach in the pelvis, I gave up. Dr. Moody also found no correlation between the muscular development of the abdominal wall and the position of the stomach. Fortunately physicians soon learned that they must not operate for the relief of ptosis. The results must have been almost uniformly bad or the surgeons would not all have given up the "hammock" operation as quickly as they did.

HEART DISEASE AND ANGINA PECTORIS

Every week I see a few patients who have been much frightened over a very questionable diagnosis of coronary disease. Usually it has been made on the basis of a few of those slurrings and notching that can be found in most electrocardiograms of men past fifty. In these cases prompt and energetic and skillful psychotherapy is needed if the patient is to be rescued from a life of invalidism and sent back to work. First, one must take the careful sort of history described in Chapter II, a history that will bring out the fact that the pain in the chest never comes with exertion or anger. Often it really has all the earmarks of an arthritic pain. The big thing is to get the patient to see the significance of the fact that his cardiac reserve is good.

Next, the consultant will do well to explain why it was that the diagnosis of coronary disease was made by good doctors at home. He may say that today many physicians are inclined to be too pessimistic about those slight changes in the electrocardiogram which heart consultants, with their wide experience, have come to regard only as signs of age or a little hypertension. If these changes were to be found in the electrocardiogram of a young man they might occasion some concern, but when found in the records made of a man of fifty-five, they must be looked on as normal.

Often it can be seen from his letter that the doctor at home suspected a functional trouble, but he wasn't sure. It is to his credit that he didn't want to take chances with the patient's life, and hence he must not be blamed for having told him to stop work and go to bed. Not being a cardiologist, he did not feel that he could come out flatfootedly and say that the heart was normal. If he had done so, and later the patient had dropped dead, he would have been blamed by the family. By the time the consultant sees the man, not only has the failure of the symptoms to return or get worse indicated that the trouble was not due to heart disease, but to a specialist who has spent his life studying hearts it is

evident that there is nothing to worry about. Under these circumstances the patient should cheer up and go back to work.

Often I help patients by telling them how the ablest heart specialist of his day, Sir James Mackenzie, used to get annoyed when, at a consultation, the family physician would keep talking about little changes in the patient's electrocardiograms. Sir James would say, "Throw those things away, and tell me how long is the man's rope." All he wanted to know was how far could the man walk rapidly without being compelled to stop because of a pain in his chest. If this distance was short the man was in a bad way, but if he could walk fast as long as he pleased, Sir James was not interested in him, because it was so evident that he had a heart that was well able to do its work.

Sometimes, the better to explain how a heart which shows signs of disease can still be a highly efficient and trustworthy organ, I tell of an experience I once had with a young woman who consulted me at Crabtree Meadow, in California, the evening before a party of Sierra Club members were to climb Mt. Whitney. She so wanted to tackle the 14,500 foot mountain but was afraid to because several clinicians at home had told her she had a bad heart. Remembering the steep, hot trail up which we had toiled some 5,000 feet that day, I asked her if she had taken it on foot without distress, and when she said, "Yes," I told her to go on up the mountain. Her heart, in spite of an old injury to a valve, was obviously a wonderfully efficient piece of machinery with plenty of reserve strength for emergencies. The next day I thought I was doing well to reach the top by nine in the morning, but there she was before me! I knew the woman for years afterward, and she never had any trouble with her heart.

ENDOCRINE DISTURBANCES

Many patients come nowadays with the idea, put into their head by something they have read, or perhaps by some physician, that all their miseries and sensations of fatigue are due to disease in some gland of internal secretion. Usually they have received a lot of medication with dried glands of various kinds, and when this didn't do any good they decided to go to a large medical institution to get more definite information.

Especially when the patient is a finely built feminine type of woman who is wide-awake and active, who menstruates regularly, hasn't a moustache, is sexually adequate, and has had children, I am not sanguine

about the chances of finding disease in her glands. If they had been diseased she probably wouldn't be such a fine-looking specimen of humanity. Sometimes I go over with her the list of the several glands to see if she has any of the known signs of hyperfunction or hypofunction in any of them, and this usually is the best way of making her see why I will not even *try* to help her by injecting or feeding any glandular extract.

Perhaps, then, her physician, for whose wisdom I have respect, counters with the question, "But might she not be suffering with some borderline or poorly defined glandular dysfunction?" And my answer is that theoretically there should be many cases of this sort of thing, but the longer I practice and the more I talk to experts in this field, the less inclined I am to attempt fancy diagnoses along this line and the more inclined I am to say that I do not know what mechanism is back of the symptoms complained of. I am impressed by such facts as that occasionally I see a woman who, in spite of the early operative loss of both ovaries, is well and strong, or that sometimes at necropsies I see adrenals with almost no cortex, or a pancreas with badly scarred islands of Langerhans, and yet I learn from the history that during life the person had no signs of Addison's disease or of diabetes.

It is well that the clinician keep on the watch for borderline glandular deficiencies, but always he must try to keep his feet on the ground. There is, of course, one type of glandular deficiency that is common, and that is the one that is associated with dysmenorrhea, menstrual headache or depression, and perhaps some lack of femininity. But these disturbances seem to be so intimately built into the structure and nature of the woman, so mixed up with constitutional inadequacy and psychopathy, and often so little affected by enormous doses of ovarian and pituitary hormones that I suspect that in some cases the primary defect is in the hypothalamus. I discuss the subject in more detail in Chapter XXXII.

"MILD ADDISON'S DISEASE"

Because Addison's disease is associated with sensations of great weakness and fatigue some physicians try to explain the syndrome of chronic exhaustion, seen so commonly in nervous and constitutionally inadequate persons, on the basis of a mild dysfunction of the suprarenal glands. They do this often when there is no pigmentation of the skin and when the blood pressure is over 100 mm. of mercury. To those few men who have had a large experience with Addison's disease it does not seem

likely that there are borderline forms. They know that even a tiny amount of cortical tissue is enough to prevent the appearance of any symptoms. Recently I saw at a necropsy two adrenals which had only microscopic bits of cortical tissue left, and yet shortly before the man died of amyloid disease he had a blood pressure of 190 mm.

Apparently, then, except in rare cases, either a man has frank Addison's disease or he hasn't any symptoms of the malady. It must be remembered also that Addison's disease produces weakness and fatigue but not the psychic disturbances and neurotic symptoms that so many of the pathologically tired persons have. Fortunately, Robinson, Power, and Kepler (*Proc. Staff Meetings Mayo Clinic*, Sept. 10, 1941) have now worked out two simple tests which will tell whether or not a person has Addison's disease. These tests are based on two facts: (1) Following the rapid intake of a considerable quantity of water, patients having Addison's disease usually do not experience normal diuresis. Eventually they do get rid of the excess water, but they need more time in which to do it. Stated differently, in most cases of Addison's disease, the kidneys continue to secrete fairly concentrated urine even after water has been ingested. (2) Patients suffering from Addison's disease tend to excrete excessive amounts of sodium chloride, while they retain urea.

"POISON IN THE SYSTEM"

I see many persons with sensations of fatigue, perhaps a temperature of 99.5° F., and perhaps aching muscles or joints, who expect me to find some "poison in their system." Perhaps a physician has told them that this is their trouble, but I cannot find any sign of such poison or any source for it, and in most cases it looks to me as if the cause of the syndrome was a neurosis or possibly a fibrositis.

The theory that there is poison or smoldering infection in the system is, of course, an attractive one, but in the present state of our knowledge I think it would be better if we did not put this idea into the minds of our patients. Certainly it does not do them or us any good.

SINUSITIS

I see many patients with a nervous breakdown who have been led to believe that their troubles are all due to toxins arising in a chronic sinusitis. Usually I have reasons to doubt this, and usually a good nose specialist tells me that he cannot see any pus in the nose, or that what

few abnormalities he can find are not likely to cause a systemic disturbance. Sometimes the roentgenologist makes a diagnosis of pansinusitis when he sees signs of thickened membranes, but in many of these cases the nose specialist tells me that the trouble is old and burned out. In some cases questioning will reveal the fact that what the patient hawks out of his nasopharynx every morning is not pus but a clear, jelly-like material, which cannot be regarded as a source of systemic poison.

Fortunately, in the last twenty years most nose specialists have learned the futility of doing a series of extensive operations on sinuses that have been infected. The result is likely to be a big, dry, crust-lined hole and a nose that never feels comfortable again.

Some persons think that the daily swallowing of a little mucus from the nasopharynx causes their indigestion, but to me this seems highly improbable.

"TOO MUCH ACID IN THE SYSTEM"

Quite a few patients come with the idea that they have "too much acid in their system," and demand that something be done to correct the situation. I tell them that this is largely a layman's idea with little basis in scientific fact. The physiologic chemist tells us that if our blood were to become even slightly acid, death would soon ensue. Persons who are seriously ill may lose part of their acid or alkaline reserve, but those who are up and about do not have to worry about getting too much acid in their systems. So far as I can learn, there is no evidence to indicate that arthritis has anything to do with acid in the system.

SUPPOSED FEVER AND BRUCELLOSIS

Every year I see a number of constitutionally inadequate and nervous women who are much concerned over some physician's diagnosis of chronic fever. Usually the temperature is around 99.3° F. in the afternoon. Formerly these women used to be sent repeatedly to sanatoriums for the tuberculous, but each time they were soon discharged as not having the disease. As one would expect from this, roentgenograms of their lungs showed at most a small Ghon scar.

Nowadays, many of these women are supposed to have brucellosis, but in practically every case I see, the bacteriologists report that the blood does not agglutinate the organism in a significant dilution, a scout (preliminary survey) film shows a spleen of normal size, the blood smears

show no signs of toxicity, the leukocyte count is normal, the blood sedimentation rate is low, and the patient does not look sick.

Under such circumstances, and especially when the patient is neurotic and of the type who has a "poor thermostat," I cannot accept the diagnosis of brucellosis. I then have to explain that, for a few years after the disease was discovered in the United States, the diagnosis was made too often on the basis of weak agglutinations. Today only a strong agglutination is being reported positively by the best laboratories, and as a result, the disease is not being diagnosed so often. Neither the skin test nor the new phagocytosis test can be counted on. At times a high titer agglutination is due purely to the fact that some physician had given several doses of vaccine. Always the physician must use clinical judgment even when the report comes back of a positive agglutination.

In the Southern states the common diagnosis in cases of supposed "fever" is malaria, but when in these cases I have thick blood smears made, their examination practically always fails to show anything, and this fact, taken with the presence of a normal hemoglobin reading and a normal erythrocyte count, makes me doubt if the patient could long have had malaria with its repeated destruction of enormous numbers of red blood cells.

Nervous hyperthermia. In most of these cases my impression is that the patient has a nervous hyperthermia and not a fever at all. Usually one finds that what is happening is that in the afternoon the temperature goes up a little, especially when the patient is tired or excited. Usually when the woman (it is doubtless significant that in practically all of these cases the patient is a nervous woman) comes for the first visit she has a temperature of 99.6° F. and a pulse of perhaps 120. Two days later, when she has calmed down, the temperature is 98.4° and the pulse 80. One such woman told me the highly significant fact that when her father was operated on for a cancer she ran a temperature of 102° for the three days in which he was in danger. Interestingly, many years ago Weir Mitchell commented on the ease with which nervous women can become "feverish."

The point to remember is that afternoon temperatures up to 99.6° are within the range of normal, especially in the case of a woman with jumpy nerves and an erratic thermostat in the hypothalamus. Certainly one should expect some variation from 98.6° as one goes from person to person, and recent studies by Sheldon indicate that in nervous persons the average temperature is usually about 0.5° higher than it is in calm

persons. One must point out to the patient that there is a range through which the temperature varies every day in normal persons. It goes from perhaps 97° in the early morning to perhaps 99.5° in the afternoon. Certainly there is nothing sacred or fixed about the figure of 98.6°. There are cases on record of persons whose normal temperature varies around 100°. Some of these persons have been watched closely now for years, and as yet they have not come to any bad end. They are probably human variants like the very fat and the very thin or the very short and the very tall. I have cured scores of nervous women of chronic "fever" simply by getting them to throw their thermometer away and then to go about their business.

"CHRONIC APPENDICITIS"

Patients who come with a roentgenologic diagnosis of chronic appendicitis must be told that some of the leading roentgenologists in the world today never dare to make this diagnosis because they feel they do not know how. They do not recognize any reliable roentgenologic signs of chronic appendicitis. As I showed statistically a few years ago, the only safe criterion for the diagnosis of chronic appendicitis is a history indicating that the patient has had one or more acute attacks of the disease which kept him or her awake all night in pain.

PSEUDO-ULCER

The patient who is worrying about the diagnosis of peptic ulcer which has been found by one observer and not by others can be told that occasionally roentgenologists can be deceived by spasm in the stomach or bowel or by adhesions of the duodenum to the gallbladder. Occasionally also a duodenal cap will appear deformed in roentgenograms when no ulcer can be found at operation. If an experienced roentgenologist cannot see any ulcer, if the symptoms are not typically those of ulcer, and frequent feedings bring no relief, the patient had better stop worrying. Pseudo-ulcer is a common disease and one that seems but rarely to predispose to the formation later of a real ulcer.

"URETERAL KINKS OR STRICTURES"

Every year I see several patients who have been treated for six months or more with frequent dilatations of a ureter. In almost every one of these cases my colleagues in the urologic division are unable to see anything wrong with the ureter, and when an opaque fluid is injected into

the kidney neither dilatation of the pelvis nor slowness in its emptying is noted. Perhaps a kink can be seen when the patient stands but there will be no evidence to indicate that this is abnormal or that it is doing any harm.

Under these circumstances one must explain to the patient that there is in this country a small "school" of urologists who believe that many abdominal pains are due to certain narrowings of the ureter which other men cannot be sure of. My own experience with a few score of these patients has impressed me with the almost uniformly negligible results obtained from much urologic treatment.

PELVIC DISEASE

Fortunately the diagnosis of *retroversion of the uterus* has largely gone out of fashion. Most physicians seem to have learned that the anchoring forward of such a uterus seldom makes a neurotic woman over into a healthy one. Another diagnosis which usually is insufficient to explain a woman's illnesses is that of a slightly enlarged *myomatous uterus*. As every physician knows, myomas are commonly met with in women, and often they give no symptoms. As I point out elsewhere in this book, it seldom is necessary to remove them unless they are causing much bleeding or are growing rapidly or have grown to an uncomfortably large size. Usually the trouble in these cases comes because one gynecologist says the woman has a tumor and the next one says she has none. If I say only that she has or hasn't one she will go on to yet another physician or two to see who was right. If I am to stop her from further traveling I must explain how it happened that the first two men could differ and yet both be essentially correct. Usually what happens is that the woman has a little myoma the size of a hazelnut in a uterus that is half again as large as normal; one man calls this a tumor while another does not believe it is worth talking about. Both are right, and the woman should stop worrying.

INTESTINAL AUTOINTOXICATION

A diagnosis that was popular years ago was that of intestinal autointoxication. I am glad to say that I seldom hear of it today. My impression is that most of the few men and women who complain bitterly of this supposed poisoning have that type of insanity which causes some persons to feel that they have a snake crawling around in the abdomen. They say that their brain is going to suffer serious damage unless some-

thing is done for them, but my impression is that the disease in the brain is primary and the distress in the colon is secondary. No matter how clean such a person keeps the colon with purgatives and enemas, he or she is never satisfied and never reassured. I have learned not to waste time trying to help these persons. I let them go to someone else who hasn't yet learned the futility of trying to cheer them up.

ON MAINTAINING FRIENDLY RELATIONS BETWEEN THE CONSULTANT
AND THE HOME PHYSICIAN

Much might be written on the etiquette of consultations and the art of disagreeing as to a diagnosis without upsetting the patient or offending his physician. Fortunately, the doctor who refers a patient to a consultant commonly does so because he respects and admires and likes him and really wants his opinion, no matter how much it may differ from his own. Often also the consultant knows the home physician to be an able and devoted practitioner, widely respected and loved in his community; perhaps he is an old college mate or an old student or interne, and then it is easy to have differences of opinion without rancor.

Actually, in most cases there is no great difference of opinion as to diagnosis or treatment, and then the consultant can have the pleasure of backing up the family doctor and strengthening his hand. In many other cases the consultant has to admit that he, too, cannot make an exact diagnosis or offer a satisfactory treatment, and then again, the hand of the family doctor is strengthened, and any suggestion of blame is removed from him.

Tact and kindness and the avoidance of anything that might look like arrogance are particularly helpful in at least three situations: first, when something is found by one physician and not by the other; second, when the two differ as to the significance of a finding; and third, when they are diametrically opposed as to diagnosis and treatment.

Often when the consultant finds something important that was missed by the home physician he will realize that he should take no particular credit for this; he just has greater facilities for making an examination; he gets much help from specialists and laboratory workers, and he has the advantage that when a patient comes to him he or she is prepared to submit to a thorough examination. The consultant is likely to forget that at the beginning of an illness the average patient is not alarmed enough to be willing to stand the expense of a good overhauling.

Another great advantage the consultant has is that, for years, he has

been able to limit his practice to patients with a few diseases, perhaps all in one organ or tract. As a result he comes to know these diseases intimately in all their rare and more bizarre and puzzling forms. In time they become such old friends, or, shall I say, old enemies, that commonly he recognizes them at a glance. Better yet, he knows when not to diagnose them.

A physician has attained unto knowledge when he knows well the symptoms of all the common diseases met with in the practice of his specialty, but he has not attained wisdom until he knows what symptoms a disease *will not produce*. For instance, a woman in a depressed state may be found to have gallstones, a low blood pressure, or a myomatous uterus, but the wise clinician will know that *these things cannot be held accountable for her psychopathy* and her sensations of extreme and painful fatigue.

Often I am glad to be able to tell a woman that I can see from her physician's letter to me that he had a good hunch that the indigestion she complains of is functional in origin, but not being a specialist in gastroenterology, he did not feel sure. He recognized the woman's neurotic make-up and he knew of the existence of nervous strains that might well have upset her, but he could not be sure that organic factors were not at work too. With many years of experience in the one field, I may feel so confident that the syndrome is typically that of a neurosis that I will have no desire to look further for a cause.

In most cases, when, as usually happens, the home physician has made as thorough an examination as he could with the facilities at his disposal, the patient is not disgruntled because something was missed, but is grateful for having been referred to a man who had the facilities or the special training to find where the trouble was.

Often when a diagnosis must be changed the consultant can greatly soften the blow and can avert criticism by admitting that he, too, was stumped for a time and afraid he would not be able to make a diagnosis. He may also remark to the patient that in a case so rare or atypical, no one need feel ashamed for having had difficulty in finding the cause.

And just as the consultant must not feel too superior when he finds something missed by the badly overworked general practitioner, so also the general practitioner must make allowances and be forgiving when, as not infrequently happens, the consultant fails to identify the first indeterminate symptoms of, let us say, coronary heart disease, generalized carcinomatosis, or a slight stroke, and sends the patient home with a clean

bill of health and the diagnosis of an anxiety neurosis. The home doctor must remember that in many such cases the coming of just one new symptom can make the diagnosis easy.

The most difficult situation, and the one most likely to drive a rift between old friends is the one that arises when either the consultant or the home physician, having recognized hysteria or an anxiety neurosis, must, if he is to cure the patient, refuse to make the slightest concession to the other's diagnosis of, let us say, an injured spine, heart disease or cancer. But here friendliness, good will, humility and tact can often save the day.

One of the fine things about practice in a good clinic is that it trains each specialist in the group to defer easily, comfortably and wholeheartedly to the opinion of a fellow specialist when the problem under discussion falls in the other fellow's field. For instance, in a certain case, I may think it probable that the patient's pain is due to a coronary injury but if my colleague from the heart section says, "No, it isn't angina," I will not have my feelings hurt and I will have no desire to argue. I am so sure that my colleague knows more about heart disease than I do that it hardly occurs to me to question his verdict. This attitude often helps me when dealing with a much worried patient, because as I point out, if I, with all my extensive knowledge of heart disease, do not think of putting my opinion up against that of the heart specialist, how much less right has the patient, with his utter lack of knowledge, to go on worrying when he has been told that he has no need for doing so.

Many a physician so hates a consultation that he will balk at calling in a confrere even when the family greatly desires that he do so, or when, with the patient going down hill, it would be greatly to his (the physician's) advantage to get some one to share the unpleasant and dangerous responsibility. A wiser man would not have waited until the family was about ready to change doctors, but as soon as things began to go badly, he would have said, "I know you must be anxious, and if there is anyone whom you would rather have in charge, or if you would like to have a consultation with anyone, please say so and do not think of my feelings. I have only one desire and that is to do everything possible to save your loved one. I want you to be satisfied that everything is being done that can be done." Often then, either the family quiets down and becomes satisfied, or else they accept the consultation and get great comfort out of it.

For years I watched a man with only the most meager knowledge of

medicine build the largest and wealthiest practice in a large city by being lavish in his use of consultants. With their help he got an idea as to the diagnosis; he learned what to do; he kept out of trouble, and he delighted his patients by making them feel important and well cared for.

I like to see a consultation held in the presence of the patient and the family. There the diagnosis can be "openly arrived at." Always in my younger days, when the consultant, after making his examination, would suggest to me that we retire to talk over the problem I would say, "No, if it is all right with you I'd rather stay here. These people are paying you for your opinion and I believe they should have it without any shadings designed to save my feelings. I do not want my feelings saved. I called you because in this field of medicine I believe your knowledge is greater than mine, and hence if your opinion should differ from mine I will cheerfully accept it." Always I have found the consultant happy to deal openly in this way with the family, and always the family was happy too.

As every physician knows, when the diagnostic problem is a difficult one the only way in which to get a good opinion from a consultant is to turn the patient completely over to him for a careful study. Similarly, at times, if a good therapeutic result is to be obtained, the patient must be under complete control of a man expert in the treatment of the particular disease.

As I have already intimated, just as the consultant will want to be careful to deal in a friendly and considerate and tactful way with the home physician and to save him from unfair criticism by the patient and perhaps some unpleasantness with him, so also the home physician will want to deal fairly with the consultant and to spare him from annoyance and blame. When a patient returns from the city with a report of an overhauling, all the home physician need do to wreck the consultant's reputation is to raise a horrified eyebrow and say, "What! no test of basal metabolism," "no excretory urogram," or "no electrocardiogram. What sort of an examination was that?" Such comments leave the patient with the impression that he was dealt with unfairly and that he got nothing out of his trip.

Sometimes, also, the home physician will refuse to accept the consultant's diagnosis or to try out the treatment he proposed, and then, again, the patient will be all at sea. Sometimes he or she goes to another physician to get treatment along the lines suggested by the consultant, and then the home doctor may suspect that the consultant had a hand

in taking his patient away from him. While I am perfectly willing to admit that the home physician's ideas as to diagnosis and treatment may be the more correct, still I feel that it would usually be to his advantage not to upset the patient by refusing to collaborate in any way with the consultant; usually I think it would be better to try out, for a while at least, some of the therapeutic suggestions that have been made.

In the past, most unpleasantnesses between physicians arose from the curious idea that when a patient consulted a particular doctor he became his property for life, and if he ever changed to another, it could be only because that doctor had in some underhanded way stolen him from his original owner! Fortunately, this idea has of late been fading out, to be replaced with the realization that since no physician can ever hope to please or satisfy or cure, or even help, all of his patients, many of them must of necessity keep going the rounds, hoping always to find someone who can cure them. Hence every physician with the slightest streak of possessiveness or jealousy in his make-up must spend his days fighting the tendency to feel hurt when a patient leaves him to go to someone else. He must keep remembering that this is to be expected; that it must always be happening, and that he must not feel any resentment against either the errant patient or the innocent brother physician who inherits him or her for a while. Actually, as day after day I spend hours trying to help neurotic and constantly ailing women, I sometimes think how grateful I would be to any brother physician who would have the folly or temerity to steal a lot of them from me. Surely, by doing so he could add years to my life!

Chapter X

ON TELLING THE TRUTH TO PATIENTS

"One lie will destroy a whole reputation for integrity."—BALTHASAR GRACIAN,
The Art of Worldly Wisdom.

"It is a sort of happiness to know the worst that can befall us."—LA
ROCHEFOUCAULD.

"The usual reluctance to administer the truth about a person's symptoms springs from ignorance of how to do it and from apprehension of the consequences. The truth, even when it is unpleasant, will usually be accepted if tactfully and sympathetically introduced, and the result is a more lasting and more fundamental cure."—H. G. McGREGOR.

"The technic of truth-telling is sometimes difficult, perhaps more difficult than the technic of lying, but its results make it worth acquiring."—RICHARD CABOT.

*" . . . Make not impossible
That which but seems unlike."*—SHAKESPEARE, Measure for Measure.

"But I deny the lawfulness of telling a lie to a sick man, for fear of alarming him. You have no business with consequences. . . . Besides, you are not sure what effect your telling him that he is in danger may have . . . Of all lying, I have the greatest abhorrence of this, because I believe it has been frequently practiced on myself."—SAMUEL JOHNSON.

I FEEL I MUST IN THIS BOOK DISCUSS THE QUESTION OF TELLING PATIENTS THE truth about serious illness because so often, when I am dealing with an elderly person with a functional trouble, I cannot cheer him and reassure him as I would like to do because he is so sure that if he had a cancer I wouldn't tell him about it. And why should I expect him to believe me when for forty years he has watched doctors telling cheerful lies to his dying relatives and friends? Why should he, when he is seriously ill, think that we of the medical profession are going to treat him any differently?

Many a time, especially when dealing with a much-frightened Jewish

patient, I have tried for a half-hour to reassure, only to learn later from the wife that the man was still hopeless and sure that he had a cancer. When talking to such a man, I hand over the laboratory and roentgenologic reports so that he can see that they are negative, and sometimes I dictate in his presence the letter of findings to his physician, but still the only impression he gains is that I am taking extra pains to deceive him. Sometimes when I suspect that this will be his only reaction to my efforts, I resort to a stratagem; I leave the record on my desk and go out of the room, saying that I will be back after a while. Then the man grabs his reports and reads them, and because he thinks he has stolen a march on me, he at last is satisfied that he is all right.

Oftentimes, when trying to reassure an unnecessarily worried patient, I tell him that, as I see it, when he is paying me for an opinion I have no legal or moral right to give him anything but the truth. Certainly I would be criminal if, after finding an operable cancer, I were to fail to tell him about it and give him his chance to have the operation that might save his life. But time and again, especially when the man is sure that he has a cancer, his reaction to this argument is bad. His conclusion is that if I am sending him home it must be only because the lesion is inoperable.

Sometimes I wonder how a doctor who believes in the medical lie expects a man with cancer of the rectum to accept a big and hazardous operation. Why should he accept it when he has not been told that his very life depends on its being performed? Why, also, should he accept a permanent colostomy when he hasn't been told that he must take that, "or else"?

THE FEW PATIENTS WHO DO NOT WANT THE TRUTH

About the only time when I fail to tell a patient he has an inoperable cancer is when he does not ask me what I found. Many old people behave in this way, especially when they have a good idea of what the verdict will be, and do not care to hear it. When severe illness has come upon a man, with marked loss of weight and strength, and when his doctor has made a roentgenologic examination, and instead of telling him what it showed, has summoned grown sons and asked them to take him to a distant surgeon, he cannot help but have a good idea of what is wrong. Many such patients come in tired and apathetic, and perfectly willing to keep quiet and let their children handle the matter. Some also, with nice feelings, seem to hate to force the doctor to squirm

and lie. When I see that such a patient does not care to talk to me about the diagnosis, I don't believe it my duty to force the information on him, and I do not do so. Sometimes I say only that there is something bad in him that we cannot cut out but which I hope will be held down with the help of roentgen rays or radium. I have the impression that many persons would rather not hear the dread word "cancer" and so I always try to avoid its use.

**THE MEDICAL LIE OFTEN FAILS TO DECEIVE AND IT DOES THE PATIENT
AND THE DOCTOR HARM**

Through the years I have tried both methods: (1) frankly telling the truth, and (2) trying to avoid saying anything; and I have had unhappy experiences with both technics. Many a time I have wished afterward that I had told the truth, and sometimes I have wished I hadn't, but I have come to the conclusion that usually the truth is better. Lying is often unconvincing, and furthermore, I find that most persons feel better when they know the truth. They do not feel so frightened and lonely when the doctor has talked frankly and sympathetically with them. Time and again when I have tried to withhold information so as to save a highly worrisome woman from mental distress, I have only made her more upset; I have gotten myself distrusted and disliked, and I have lost her good will. She saw that I was evading her questions; she resented it, and she resented it the more when she found that I had confided in her relatives. She felt that I hadn't thought her brave enough to face the truth.

Many a time a woman has told me that in their efforts to deceive her or to avoid giving information, her physicians had only added to her anxiety and had filled her with panicky fear. Fortunately, I learned this lesson when I was only a few weeks out of college and an intelligent woman told me of her reactions to medical lying. As she said:

"I went under the anesthetic knowing that if the nodule in my breast was found to be benign the operation would be a minor one, whereas if cancer was found the whole breast would be removed. When I woke and realized that the larger operation had been performed, I couldn't understand why the surgeon wouldn't talk frankly to me. Surely he couldn't think me such an idiot that I wouldn't know that a cancer had been found? Hence, when he wouldn't answer my questions I was terribly upset, feeling that I must have a particularly malignant lesion. It would have been so much easier on me if he had talked to me frankly: admitting

the truth and telling me what hopeful things he had noted. After living for months in daily fear as to the nature of the lump in my breast, I would have found a large measure of relief in feeling that at last I knew the worst."

THE NAIVETÉ PHYSICIANS SOMETIMES SHOW

Actually, we physicians are often extremely naïve when we think that an intelligent man or woman has not guessed that he or she has cancer. We even go on thinking this after the person has been turned down for operation and been given instead a course of radiotherapy. The only thing that enables us to go on year after year lying and trying to evade as we do is the delusion that "we are getting by with it," a delusion that we can hold to only because patients like to make believe that we and their relatives have fooled them. They do this because they do not care to be fussed over, and they want to save others from embarrassment and mental suffering.

I think the extreme in naïveté was shown me one day in San Francisco when a prominent physician brought in a much-worried friend of his with a lesion in the colon. Some way or other the subject of the medical lie came up, and right before this patient, whose greatest desire at that time was, first, to hear that he had diverticulitis and not cancer, and then to be able to put complete trust in this opinion, the doctor said, "I am proud to say that never in my life have I told a patient that he had cancer." I wondered why the patient didn't turn to his friend and say, "Now that I know how you feel, whenever I am worried, you can never again help me or encourage me."

There doubtless are some persons who are fooled and cheered and saved from years of anxiety by our lies or evasions, and there are others who, even when they are not fooled, are helped because they have an ostrich-like component in their character which enables them to hypnotize themselves into accepting what they want to believe. But others are angered and made resentful, even when they know that the doctor's motives were good. Some are resentful because, as they say, if they had known the truth earlier, they could have saved thousands of dollars through the avoidance of useless treatments and trips here and there in a vain search for health.

TELLING THE FAMILY OR SPOUSE DOES NOT ALWAYS WORK WELL

One reason why the medical lie usually fails to deceive is that members of the family commonly fail to keep the secret. Many a time a woman

has said to me, "One look at my husband's face when he came in after talking to you, and I knew what your verdict had been," or, "I ran into my daughter weeping unconsolably and I had to stop and comfort her," or, "People now have a disconcerting habit of stopping talking whenever I come into a room," or, "People blurt out, before they can stop themselves, statements which show that they are thinking of the day, not so far off, when I'll be gone."

Our habit of telling the spouse rather than the patient does not always work well. I remember an able woman with widespread cancer who said to me, "I wish you had told me first so I could have warned you not to tell my husband. The knowledge does not bother me much, but he cannot take it, and he is rapidly going to pieces." But, as I said to her, the man would soon be knowing it anyway; so why not know it while she was still around to help him face the blow? Often when I see a fine, affectionate husband and wife trying to deceive each other after thirty years in which they have faced together every buffet of fortune, I say, "Why don't you two share this sorrow also? You who have gone through all the great adventures of life hand in hand, surely you should be going through this one, the greatest of all, in the same way. As one of you now starts through the Valley of the Shadow, why shouldn't the other be staying close? Why shouldn't you both be talking frankly about the future?"

Often the relatives stop me in the hall and ask that I do not tell the patient the truth, but usually I tell them that they will have to let me handle the matter in my own way. Usually they say: "He couldn't take it, and he would probably commit suicide." Actually, I cannot remember any patient who committed suicide because I told him he had cancer. Most persons take the truth with remarkable stoicism.

Often the lie the relatives ask me to tell would be silly because it couldn't possibly deceive the patient. To illustrate: Some time ago a physician wrote to upbraid me for having talked frankly to his uncle, who came to the clinic, emaciated and almost dead with a painful cancer of the esophagus. As the doctor said, "Didn't anyone ever tell you that no ethical physician tells a man he has cancer?" The wife hadn't wanted me to talk frankly with the patient but when I asked him if he didn't know what he had, he said, "Of course I know. All I want to find out from you is this: If you had what I have would you borrow money and saddle debts on your wife and children in order to have a feeding gastrostomy made?" I said, "No, I wouldn't," and the man gratefully

wronged my hand. He said he resented the fact that all his savings had been wasted in going from one medical center to another having biopsies made. Each esophagoscopist in turn had said he was not sure what the sections showed, but the patient overheard interns and nurses talking about cancer. Besides, for a long time he had felt the hand of Death on his shoulder. I replied to the doctor-nephew, asking him to write out for me a lie so plausible and satisfying that it would have sent the man on his way, still in pain, starving, and unhelped, but fully convinced that all was going to be well with him. I am still waiting for it.

DILEMMAS THAT RESULT FROM LYING

A big objection to lying is that usually the truth has to come out in the end, and then, perhaps, if the patient has had to get it from a consultant to whom he has gone for diagnosis and treatment, he turns resentfully on the good doctor at home who tried so hard to save him from worry. And this is doubly unfortunate when, as often happens, it causes the family doctor to feel that the consultant has "let him down." Actually, in many a case I have wished I knew how to wriggle out of the very uncomfortable position in which I found myself. I didn't want to hurt a fellow physician or perhaps to lose his friendship, but what was I to do? Here came a woman with great fear in her eyes, a year-old scar of a radical excision running across her chest, and the complaint of shortness of breath and terrible backache. Naturally, she wanted to know what was the matter, and she wanted relief from the nightmare of pain. There was no letter from the home physician because he saw no use in the patient's starting out on a wild-goose chase, and had done what he could to deter her.

But here I was, "on the spot." If I were to assume that the pain was due to metastasis and send the woman off with the diagnosis of neuralgia and a prescription for morphine, she would know that she had not been examined properly; she would be disgusted with me and the clinic, and off she would go to some other medical center to be properly taken care of. And there, when the doctors showed her that she had metastasis all through her bones, and fluid in her chest, how outraged she would feel toward me and the clinic. It would seem obvious to her that I had been slipshod, ignorant, and almost criminally negligent. Worse yet, the clinician who had made the correct diagnosis might well wonder if the clinic and I were not slipping badly in our work. No, I believe I have the right not only to deal fairly with such a woman and to try to relieve her pain,

but also to protect my reputation and the reputation of the clinic where I work. I must have roentgenograms made, and when the woman and her husband ask to see them and to be told what they show, I must be frank. If I do not tell them the truth, how am I to explain why I want the woman to have the roentgenotherapy which will probably lessen her pain and lengthen her life? Most persons know that radiotherapy is used mainly in the treatment of cancer. And if I do not tell the truth how am I to explain later why the woman gets steadily weaker, or how am I to avoid giving a hopeful prognosis? Surely, also, I ought to talk over with the husband some of the terrible financial and other problems that are soon to assail him so grievously.

Always in these cases I beg the patient not to blame the doctors who avoided telling her that she had cancer; they were only trying to save her from months or years of terrible anxiety, and they were doing what they had long been taught to do. Perhaps by their efforts they did save her a year or two of mental suffering, and for this she should be grateful. But often nothing I can say will quiet her resentment at her home physician or restore her faith in him. Often the patient and the family persist in feeling that from the beginning the woman should have had the privilege of knowing what the trouble was so that perhaps she could have elected to have roentgenotherapy earlier, the minute the pains appeared.

PATIENTS OFTEN FEEL RELIEVED ON GETTING THE TRUTH

Usually I find such a patient and her husband pathetically grateful when I talk to them frankly and sympathetically as a friend, and when I give them some hope. They tell me that the truth is not half so bad as was their terror when they faced the unknown, and, besides, now it is so good to have a friend to whom they can always come and learn what they want to know. I cheer such people with true stories of patients I have known, who lived on for years even with metastatic lesions which for some unknown reason did not go ahead and kill. I remember one woman who, after the removal of a cancer of the breast, soon returned with metastasis in one femur. After roentgenotherapy she remained well for fourteen years. Then on the return of pain she was given some more radiation, and two years after that when I left California she still was well.

I remember another woman who, after the destruction of an inoperable uterine cancer with radium, lived on for seven years until she died of a stroke. At necropsy many aortic lymph nodes were found filled with cancer, but for some reason or other the malignant cells had failed to

grow or bother her in any way. Statistics show that when highly malignant cancers with metastasis are removed or even sometimes when they are treated only palliatively, one or two patients out of a hundred will not die but will in some way fight the disease to a standstill.

Sometimes I cheer patients with the hope that the diagnosis may be wrong. I have seen many cases in which the survival of a patient I had thought was doomed made me doubt later if the original diagnosis of cancer had been correct. I like also to tell the apparently doomed patient to hang on bravely as long as possible because active research on cancer is going forward in many laboratories, and a cure is almost certain to come out some day, perhaps in time to save the person I'm talking to.

TACTFUL WAYS OF TELLING THE TRUTH

Fortunately, just as there are blunt, callous, unsympathetic, and soul-searing ways of telling an unpleasant truth, so there are kindly, tactful, and sympathetic ways; one can slam the door of hope tight shut in a patient's face, or one can leave it a little ajar. Obviously, the kindly physician will choose the latter method.

He will be careful also not to use that terrible word "cancer" unless he has to. It hurts because of its many unhappy associations. One can usually avoid the word by speaking of a malignant growth or a tumor which, if not removed, will scatter all over the body. When I think a woman has a cancer of the breast I am likely to say, "I fear this is a bad kind of lump that we must take out quickly. It may be all right and we will hope it is, but since you won't have a minute's peace of mind until it is taken out and examined, and since that is the only wise thing to do, let us do it right away." This leaves the woman some hope and it does not flatten her with one blow. She knows well enough what I mean, and rarely does she refuse to have the operation done. If she were to do so, I would talk more frankly, and if she still refused, I would decline to carry the responsibility of taking care of her.

My conclusion, then, is that I think we physicians are legally and morally bound to give an honest answer to the questions a patient asks us. It is always distressing to us to have to tell a man that he has a malignant tumor; we would rather not do it, and when we do it, most of us try to be tactful and kind, and to avoid the use of the terrifying word "cancer," but I am sure it is not our duty or obligation to try to conceal all knowledge of the diagnosis. Such efforts commonly do not succeed in their object, and as I have shown, they can injure and hurt not only

the patient but the reputation of the physician and of the institution in which he works.

I think a person need not be told that he has an inoperable cancer when he does not ask any questions and indicates by his behavior that he neither wants to discuss the subject nor to do anything about it. It probably is unwise also to tell an old man with a bad heart that his prostate feels hard and cancerous. He may die of angina before his prostate can pull him down; so why bother him?

Through the years I have gained the impression that people, and especially the older people who are more likely to have cancer, are not as cowardly as we assume them to be. Often they face things beautifully, bravely, and philosophically. Many say they have had enough of life; they could enjoy more, but if it is not to be granted them, they are content to go. Most of them ask only that their period of suffering be not long drawn out. Many a time I have had persons say that they were much relieved to know the worst. Since getting the verdict they had been able to rest and sleep again.

Doubtless some physicians will disagree with me on this subject; all I can do is to record my thoughts and my conclusions after many years of struggling with the problem.

Chapter XI

HELPFUL POINTS IN THE DIAGNOSIS OF ABDOMINAL PAIN

"I always hated to show emotion, which makes it doubly hard on my nerves, and after any unusual strain they ache like a tooth, all over my body."—G. GERTRUDE HOOPES, *Out of the Running*.

"Those who do not feel pain seldom think that it is felt."—SAMUEL JOHNSON, *The Rambler*.

"The more you lament, the more is your suffering."—Persian proverb.

"One . . . afternoon . . . returning home from a pleasant day at school . . . I was amazed to hear myself saying, 'Mama, I feel sick. I feel awful!' . . . I pointed to my navel. . . . I remained lying down for more than a month . . . remained . . . a supposed invalid all that winter and all the following spring—though so far as I know there was nothing the matter with me. The supposed physical symptoms . . . had been pure lying. It would be untrue to say they were imaginary since at no moment had I ever imagined I felt the slightest . . . discomfort.

But why, then, had I told that whopper? I was the one who was surprised, for I had felt no conscious nervous mental or emotional maladjustment. . . . It had been as if some unconscious part of me had decided automatically and independently for reasons to which the conscious I remained completely blind, that it wasn't going back to school any more. . . . I was conscious it was all a fraud but felt as detached as if I'd been watching some other boy. . . ."—WILLIAM SEABROOK, *No Hiding Place*.

IS THE PATIENT'S TROUBLE REALLY PAIN?

THE FIRST THING TO DO WHEN A PATIENT SAYS HE HAS PAIN IS TO MAKE SURE that it really is pain and not something else that he is talking about. Often, when he has only a discomfort, he will begin by calling it a pain, perhaps because of a subconscious hope that the physician will then take him more seriously and pay more attention to his problem. In other cases the assistant who takes the history does not inquire carefully enough; he jumps to conclusions, and down on the paper goes the erroneous statement that the patient has *pain*.

This is unfortunate because, in so many cases, real pain, and especially severe pain, points to the presence of organic rather than of functional disease. On the other hand a burning, or a quivering, or a picking, prickling, pulling, pumping, crawling, boiling, gurgling, thumping, throbbing, gassy or itching sensation, or a constant ache or soreness strongly suggests a neurosis. In my experience intra-abdominal quivering is always a sign of nervousness, and epigastric "burning," especially in the Jew, points almost as certainly to a neurosis. I think it is a paresthesia, felt in the abdominal wall. Such burning must be distinguished from heartburn in which the sensation is felt higher up under the lower half of the sternum. Epigastric burning is met with in some cases of ulcer, but even in them, it seems to be of nervous origin, because when, after an operation, the lesion heals and the pain goes, the burning distress usually remains unchanged.

IS THE PAIN IN THE ABDOMINAL WALL?

In many cases it is highly important to bring out the fact that the pain or distress complained of is out in the abdominal wall, and not deep in. Often the patient knows this, and would gladly mention it if he or she were only asked. Elsewhere in this book I tell of a woman who would never have had two fruitless abdominal operations if she had only been able to get her physicians to see that her distress was in her skin and not deep in her abdomen!

HOW DID THE PAIN FIRST COME?

One can learn much sometimes by finding how a pain started. Did it come so gradually that no time of onset can be remembered, or was there an acute attack to begin with? If so, at what hour of the day did it come? What was the patient doing? What had happened on that day? Was there any tragedy, or great worry or shock, a family argument, or much fatigue or excitement? Was there a tantrum of temper? Did the patient eat any unusual food, perhaps at a fair or picnic or cheap restaurant? Did friends or relatives eat the same food and were they ill? Did the patient have a bad cold? Had he been feeling poorly for a day or two? Such illness preceding the attack usually suggests an organic and perhaps infectious cause. If the patient is a woman, it may help to learn that she was pregnant at the time of the first attack, because pregnancy often brings on the first attack of cholecystitis or pyelitis.

Occasionally, when puzzled over the nature of a peculiar pain or other

distress, I have been greatly helped by finding that the first attack came under conditions well calculated to send a nervous person into a hysterical state. If the first spell was fairly obviously nervous in origin, the probability is that the subsequent ones were too. Oftentimes, in cases of this type, I have been able to learn the cause of the trouble only by questioning the spouse, other relatives, or the home physician. A woman may know in her heart that her attacks of pain always follow a debauch of temper or a family row, but shame may keep her from admitting this.

But even when it is clear that most of the attacks followed a heated argument or some debauch of emotion, one must make sure that other spells did not come out of a clear sky when the patient was quiet and happy and perhaps on a vacation. This fact, if established, must not be glossed over or forgotten. Thus, an excitable Jew, after describing several attacks of severe epigastric pain, said, "I should be honest, doctor, and tell you that four out of five of my spells follow my 'hitting the ceiling' over an 'aggravation,' but the fifth comes when I cannot see any cause for it." This made me feel that he must have some organic disease, and on having roentgenographs made of his gallbladder I found plenty of stones. As I point out elsewhere in this book, there is no reason why emotion shouldn't cause pain in a diseased gallbladder just as easily as it causes it in a normal one.

If there was an acute attack, it is helpful to ask if a physician was called. Did he give morphine, and did it stop the attack? Did he examine the urine or make a leukocyte count, and if so, what did he report? What did he think was the trouble? This may be helpful because the doctor who saw the patient in an acute attack has a great advantage over those who didn't. Was an operation advised, and if it was performed, what was found and done?

PAIN MAY BE MORE TYPICAL OF SOME DISEASE IN THE FIRST ATTACKS

In many cases of puzzling abdominal distress I find that if I am to get a story typical enough so that from it I can make the diagnosis, I must go back to the beginning when the first attacks came. At that time they may have been typical of, let us say, ulcer, but after the development of pyloric obstruction or deep penetration of the ulcer into the head of the pancreas, the clinical picture became blurred and no longer was the pain typical of any well-known disease.

DOES THE PAIN COME IN ATTACKS OR IS IT CONSTANT?

It is helpful to know that a pain comes in attacks because this suggests an organic cause. A pain or ache which is fairly constant day and night for years is rarely due to any cause which can be found at an exploratory operation. Often it behaves much as if it were a manifestation of fatigue. After getting a good description of the first attack I like to know how long it was before another came, and if there was any ill health or indigestion in the meantime. Perfect digestion between spells speaks against the presence of gallstones, intestinal obstruction or other serious disease in the digestive tract, but unfortunately it does not rule it out.

DOES THE PAIN SHIFT ABOUT?

When the pain returns does it always come in the same place, and is it always of the same type? Pain that shifts about is not so likely to be due to organic disease in one organ. Sometimes pain of organic origin will begin in a different place but will always end up in one spot.

LENGTH OF THE ATTACKS AND THE INTERVAL BETWEEN

The duration of the attacks is important, because the pains of unknown origin often last for months, while those due to ulcer usually last for a few weeks and those due to a gallstone or to a ureteral colic last for hours or a day or two. Naturally, there are many exceptions to these rules. I remember a young man who in sixteen years had had innumerable attacks of pain in the upper abdomen. Most of them lasted only a few minutes and he never needed to call a physician. To my surprise, I found his gallbladder full of stones.

Ulcer pain tends often to return twice a year, in the spring and fall, while gallstone colics may come at intervals of many years.

EXACT LOCATION OF THE PAIN AND THE WAY IT RADIATES

As I mention elsewhere in this book, it is highly important to have the patient strip and show with his hand just where his pain comes and how it radiates. Not infrequently when I get him to do this I am surprised to find that the pain which he said was in his "stomach" is being felt below the navel. I remember a woman who almost had her gallbladder removed because she said she had been having colics needing morphine. When I asked her to show me where the pain was, she pointed to both groins! She was having hemorrhages into a tumor of the ovary. Similarly,

many a man who has had futile Sippy treatments would have been spared the expense and waste of time if his physicians had only asked him to point to the site of the pain and had seen him put his hand over the lower abdomen. Many a woman, also, would never have had much futile treatment for a roentgenologic diagnosis of ulcer if she had shown the doctor that her misery followed the course of her colon.

The point of reference of abdominal pain is so important diagnostically because pains arising in the stomach, duodenum, gallbladder, and pancreas are felt above the navel, pains arising in the jejunum and ileum are felt about the navel, and pains arising in the colon and the pelvis are felt below the navel. At times there is an atypical location of pain due perhaps to an atypical distribution of sensory nerves, or to a reflex contraction of some part of the bowel at a distance from the one primarily involved in some painful process, or, as in cases of carcinoma of the descending colon with pain in the cecum, to the backing up of gas and intestinal contents and the resultant distention of a weak-muscled segment orad to the point of obstruction. A shift of pain in the case of a gastric ulcer or carcinoma may be due to the penetration of the lesion to the peritoneal coat where it involves another set of nerves.

Pain due to lesions at the cardia is generally felt in the epigastrum or in the middle back, or up in the suprasternal notch. Pain arising in the pelvic organs, bladder, prostate, or posterior urethra is likely to be felt in the pelvis or in the lower abdomen above the pubis. As is well known, pain originating in a kidney is likely to begin in the flank and to radiate down to the bladder, penis, or testicle. Pain arising in the pancreas may be felt in the middle of the back or left hypochondrium, or lower part of the thorax.

When inflammation of a part of the colon spreads to the overlying peritoneum the pain is likely to shift to the skin area representing the segment supplied by the sensory nerves newly involved. This is why the pain of acute appendicitis is likely to be felt first about the navel and later at McBurney's point. If the colon becomes filled with gas so that it rises in the abdomen and pushes against the parietal peritoneum, it may produce pain in the epigastrum.

SEVERITY OF THE PAIN

I think it helpful to get some idea of how severe a pain is, if only so that one will know later how much needs to be done in the way of treatment. If the so-called pain is not very disturbing and no cause is found

for it, the patient will often go home, content to do nothing more. I like to know if the pain ever doubled the man up; did it ever make his abdomen rigid, make him sweat, or cause him to get on his hands and knees? Did he have to call a physician, and was morphine needed for relief? Did one hypodermic injection give relief, or was a second or third dose required as is the case sometimes with ureteral colic? Did the pain wake the patient out of his sleep, or did it keep him awake all night? Pain as severe as this is usually due to organic disease in the abdomen or thorax. Anyone who is wakened out of a sound sleep by pain and has to get up and walk the floor, or go to the kitchen for food or to the bathroom for a dose of sodium bicarbonate probably has an organic and demonstrable cause for his pain. A good indication that an attack of pain was due to serious disease is the fact that the patient had to spend the next two or three days in bed. A pain is probably bad if it causes a previously steady worker to become demoralized and to stop work.

If it is a constant pain, I want to know if it lets the person go to sleep. If it does, it cannot be more than a nagging ache, and often that is all a so-called pain really is. Often a pain is worse at night because then the patient has nothing to distract his attention from it. Most pains in the bones or in the nervous system tend to be unusually trying at night.

Sometimes one can get an idea as to the severity of a pain by finding that a stout man or woman with a good appetite is afraid to eat for fear of getting into trouble. Usually then the trouble is due to cholecystitis, but occasionally there is a cancer in the bowel, producing obstruction. The taking of food will then cause pain by sending a column of intestinal contents surging down against the narrowed place.

When one is trying to find out how severe a pain is, it is helpful to get some idea as to how sensitive or insensitive the patient is. As I point out elsewhere in this book, it may help to ask how he or she stands the dentist's drill. Much can be learned also by noting how much of a fuss the patient makes when, let us say, a sigmoidoscope is passed.

Pain in the upper abdomen, which on one or more occasions required the giving of hypodermic injections, is generally due to gallbladder disease. It practically never is due to ulcer unless the lesion has perforated acutely or has penetrated into the pancreas, or has blocked the pylorus. Pain needing morphine for relief can be due also to ureteral colic, acute pancreatitis, a tabetic crisis, intestinal obstruction, diaphragmatic pleurisy, or angina pectoris. I have seen pneumonia in the right lower lobe produce, for a few days, a picture closely resembling that of acute cholecystitis.

RADIATION OF A PAIN

Sometimes much can be learned about the nature of a pain by noting the direction in which it radiates. Typical, of course, is the radiation of gallstone colic into the right scapular region and of kidney pain into the penis or testicle or groin. In nervous persons severe pain that has lasted awhile is likely to radiate widely and atypically.

SORENESS AFTER PAIN

Strongly indicative of an organic cause for a pain is localized soreness after an attack. Suggestive also of a local inflammatory process is pain on jolting in a car or on a tractor or when coming down on the heels.

CHARACTERISTICS OF PAIN

It may be helpful to learn something of the characteristics of a pain, but unfortunately we physicians do not yet know as much as we should about the significance of what the patient can tell us. I like to know if the pain is steady, because that indicates a nervous origin. If it comes at short intervals like a labor pain it will suggest intestinal obstruction with strong peristaltic contractions. Is it boring, cutting, stinging, burning, tearing, pressing, squeezing, or binding? After years of careful study, Sir Thomas Lewis says in his book on pain that burning arises in the skin. One can be all the more sure that a burning has its origin in the skin when the patient can outline the area with exactness.

Sometimes a patient has the impression that some viscus is being distended with gas, and then he may or may not be correct. Often there is a feeling that the pain would be relieved in a moment if gas would only start moving through some segment of bowel, and that probably is the situation. The pain of ulcer often feels like a gas pressure. The pain of gallstone colic tends to interfere with breathing, and it may feel like something pressing on or distending something in the lower thorax. The distress of heartburn is hard to describe. There may be a sort of rending or distending feeling in addition to a burning.

Many a time when a physician is worried over a patient's "heart pain" he could immediately recognize a harmless *spondylitic pain* if he would only ask a few questions and learn that the distress is either a short lancinating jab or a long-continued soreness or ache in the chest wall.

I find it helpful often to ask if the patient is arthritic, and especially if there are suggestions that he or she has suffered from spondylitis, with

lumbago, cricks, wry neck, sciatica, and sacro-iliac pain. It greatly strengthens the diagnosis of spondylitis to bring out the fact that the pain complained of is made worse by staying quiet and is relieved by walking around. Sometimes in cases of spondylitis the patient will complain of a burning in a small area as big as a dollar situated near the midline, front or back. This area corresponds to the skin distribution of one of the end branches of an intercostal nerve which has been involved in the inflammation around the spine.

Root pain follows the distribution of one or two nerves. Rarely it is associated with herpes zoster, and one can find the typical scars of the vesicles. Pains due to a nerve tumor or a displaced disk impinging on the spinal cord are likely to jab like a knife when the patient coughs or sneezes. This symptom is not pathognomonic, however. Other pains that jab when the patient coughs or takes a deep breath may be due to pleurisy or spinal arthritis.

It is important in some cases to bring out the fact that the patient has *more than one pain*. For instance, in older persons with cholecystitis and angina pectoris, the story may be puzzling until one establishes the fact that there are two pains with different characteristics, different centers of origin, and different exciting causes: one due perhaps to eating too much and the other to walking too fast.

Pain of cardiac origin is felt sometimes in the upper part of the abdomen. As is well known, such pain is usually brought on by exercise or strong emotion. When the man is walking it should stop him in his tracks, and usually after a few minutes of rest, it should let him go on again. It is more likely to come on if he exercises after breakfast or if he walks against a cold wind.

The fact that an epigastric pain *comes before breakfast* tends to rule out ulcer. I can remember only two or three cases in which an adult with ulcer had pain before breakfast. Such pain, then, in an older man with a supposed gastric "ulcer" should make one think of the probability that the lesion is cancerous. I have been told that young men with ulcer sometimes have pain before breakfast; so apparently the rule does not hold in their case.

I am fairly certain that a woman is neurotic and suggestible when she tells me that her pain, which began perhaps on the right side of the face or around the liver, has spread to the whole right side of her body.

WHAT SYMPTOMS ACCOMPANY THE PAIN?

It often helps to find out what symptoms accompany a pain. For instance, in an attack of angina pectoris there may have been a fear of death, great anxiety, and a feeling of weakness. With a gallstone colic there may have been nausea, vomiting, a catch in the breath, a cold sweat, and possibly next day abdominal soreness and a little jaundice. Typical of the woman with cholecystitis is her desire often to rush home from a bridge party to tear off her girdle, so as to get relief from a feeling of distention in the abdomen. Some of these women find it difficult to sit against the back of an uncomfortable chair, or to sit at a sewing machine because an ache soon comes back of the liver. At night if the husband, sleeping behind, should throw his arm over so that it rests on the lower ribs on the right, the woman may not be able to stand the pressure.

With a renal colic there may have been distress in the bladder and frequency of urination. With an intestinal obstruction there may have been much nausea and retching, bloating, borborygmus, perhaps visible peristalsis, obstipation, or a little bloody diarrhea. Acute appendicitis may have caused the patient to vomit much intestinal fluid, to run a little fever, to have a fast pulse, and to draw up the right thigh. With pleurisy there probably was cough and perhaps a chill, and with spondylitis there may have been an attack of lumbago or sciatica. The coming of urticaria or purpura with abdominal pain will make one think of an allergic or vascular disturbance.

HOW IS THE PAIN BROUGHT ON?

Much may be learned about a pain by noting how it is brought on. Angina pectoris is usually produced by walking fast; the pain of pleurisy may follow a cold with cough and fever; the pain of cholecystitis may be brought on by eating too much or by eating cabbage or apples, or by getting into a tantrum of temper. Such tantrums can produce severe abdominal pain also in persons who haven't any organic disease. Mucous colics, flare-ups of ulcer pain, and attacks of migraine are also likely to be brought on by psychic strain. Lifting may cause an inguinal or ventral hernia to give trouble, or an ulcer to flare up. It may also bring a sudden exacerbation of a pain due to an old spondylitis or sacro-iliac disease. Lying down or eating a large meal or bending over to tie shoes can bring pain due to a diaphragmatic hernia. Constipation, unattended to, can cause hunger pain in the epigastrium, soreness over the cecum, or head-

ache. Similar distresses can follow a cold. The taking of indigestible food, or food to which the patient is allergically sensitive, can cause pain. Pain arising in disease of an ovary, a tube, or the uterus is likely to flare up during a menstrual period.

WHAT LESSENS THE PAIN OR STOPS IT?

Much can be learned sometimes by noting what helps or stops a pain. Ulcer pain, of course, is commonly relieved by taking food or alkalis, or by belching or vomiting or getting the stomach washed out. It is well to know that in women the syndrome of ulcer is commonly so atypical that one cannot make a diagnosis from it. Worse yet, when an ulcer is diagnosed with the roentgen rays one cannot be sure that it is causing the symptoms complained of. The pain of carcinoma of the stomach, acute gastritis, or a spastic stomach will sometimes be relieved by fasting or eating little or by washing the stomach.

The pain of angina pectoris is stopped by resting or by breathing amyl nitrite. The pain of spondylitis is helped or relieved when the patient gets up and walks around. The pain of migraine is usually stopped by a hypodermic injection of gynergen. The pain of gallstone or ureteral colic can be stopped by morphine. Some pains stop when heat is applied to the abdominal wall, or pressure is applied to the abdomen, or the position of the body is changed, or when a big belch comes up, but it is hard yet to say what these observations mean. When epigastric pain, made worse by lying down, is relieved by sitting up, the physician will think of a diaphragmatic hernia or severe heartburn or pancreatitis. Pain due to hydronephrosis is said to be worse when the patient lies on the side of the good kidney because then the heavy diseased one seems to be falling and pulling and hurting.

Pain arising in the colon can often be relieved by an enema. Pain due to gas trapped in an irritable bowel can be helped by eating some food, or sipping water, or walking about or getting into the knee-shoulder position.

IS THE PAIN ORIGINATING IN THE DIGESTIVE TRACT?

When a patient tells of abdominal pain, one of the first and most important things I want to know is, is it arising in any part of the digestive tube, and in most cases the answer can be secured by asking a few questions. If the cause of the pain is somewhere in the digestive tract it should be influenced by the taking of food or the emptying of the bowel. It

should be better or worse after eating, taking alkalis, defecating, belching, vomiting, the expulsion of flatus, or the cleaning out of the colon with a purgative or an enema.

In order to get a clear-cut answer it may be important to ask the question in a certain way. I often say, "If you didn't have this pain, would you have a good digestion?" or, "Can you eat anything you like without fear of consequences?" Often, then, the answer is, "Why, yes, doctor. I never have had any indigestion. I can eat and digest anything right now, and eating has nothing to do with this pain."

Whenever I get such an answer I start looking for a lesion *outside the digestive tract*. Often in this way I save myself the trouble of carrying out a Sippy treatment which will not do any good, and often I save the patient the expense and suffering of a useless exploratory laparotomy. In puzzling cases in which there is a suggestion of recurrent intestinal obstruction I will, of course, want to know if there ever was peritonitis due perhaps to the rupture of the appendix. I have an idea also that the patient who once had a ruptured appendix is particularly likely to have gallstones. I think they form at the time of the peritonitis.

Pain which comes immediately after eating is not likely to be due to ulcer. It is more likely to be due to eating too fast or to a nervous spasm of the gastric muscle or perhaps to the type of irritability of the stomach which goes with gastritis. I have seen such irritability come suddenly with symptoms suggesting thrombosis of a small artery, probably in one of the nuclei of the vagus nerves. Pain right after eating means probably that the stomach is reacting badly to stretching of its muscle. When the interval between eating and pain is so short I cannot see how the food can affect the digestive tract in any chemical way, and hence I doubt if anyone could ever find for the patient a diet that would relieve the distress.

I am all the surer of this when I find, as I often do, that the patient's distress can be produced by drinking quickly a glass of water. As a man once put it, "For me a glass of water can be as bad as a Welsh rarebit!" In some cases the drinking of water seems to set off some chain of reflexes which immediately produces bloating.

DIAGNOSTIC VALUE OF A SIPPY TREATMENT

Unfortunately, as yet few physicians seem to realize that when they are not sure about the presence of an ulcer they can often almost settle the diagnosis by seeing how the patient responds to a Sippy treatment. If rest, frequent feedings, and alkalization promptly give the patient relief,

the diagnosis of ulcer is strengthened, but if these measures fail to influence the distress, then the attending physician should *immediately*, and by immediately I mean in a couple of days, face the probability that his diagnosis is wrong. Either it is wrong, or else the ulcer is so badly complicated by pyloric obstruction or penetration into the pancreas that it cannot be healed by medical treatment, no matter how good it is or how long kept up.

A CHANGE IN THE CHARACTER OF A PAIN

When a man has had ulcer distress off and on for years, a sudden change for the worse in the symptoms, with more constant pain, more trouble at night, more vomiting, and less ease with food and soda, suggests the coming of complications such as pyloric obstruction, penetration into the pancreas, or the growth of a carcinoma.

DIAGNOSTIC VALUE OF LONG DURATION OF A PAIN

Many a patient who fears that his pain is due to cancer can be reassured if he can be made to see that he has had the distress so long that it cannot be due to a growing tumor. If it had started out that way, let us say seven years before, the symptoms would have gotten worse and worse until the man would have had to have an operation in order to save his life. To see how true this is I once looked over the histories of several hundred patients with cancer of the small bowel or of the narrow left half of the colon and found that on the average, obstruction followed within six months after the appearance of the first symptoms.

INFREQUENT PAINS THAT EVENTUALLY BECOME CONSTANT

Characteristic of a type of unexplained abdominal pain is the story that the first spell came suddenly out of a clear sky on a certain day several years before. The next spell came perhaps a year later, the next one a few months after that, and then gradually the intervals shortened until the attacks fused and the pain became constant day and night.

Pain of this type is usually not influenced in any way by either the filling or the emptying of the digestive tract. Neither has it any relation to menstruation, urination, or exercise. Rarely is it helped by the taking of a vacation. The type of pain that is helped by a vacation is probably produced by a different nervous mechanism and is more a manifestation of fatigue. The constant pains that are not influenced by anything are due probably to some disturbances in the brain.

It may be helpful to note that in these cases the ordinary analgesics, such as aspirin, acetanilid, and phenacetin, have little if any effect, and in many instances even morphine works poorly. Sometimes I have found it helpful diagnostically to give the woman (it almost always is a woman) $\frac{1}{2}$ grain of morphine to see if it has any effect. If the pain were due to some organic disease such as cholecystitis, the drug ought, for an hour or two, to give some relief; so when it doesn't, I suspect all the more that the trouble is of psychic origin. In many ways it resembles a causalgia or that type of pain in an amputation stump which is not helped even by the taking off of the whole extremity.

PAIN DUE PURELY TO PSYCHONEUROSES AND PSYCHOSES

A good reason for suspecting that the constant and intractable pains are "functional" and probably arising in the brain is that nearly always they are to be found in a woman, and usually in an unhappy, tired, sickly, and more or less psychopathic spinster. Often she has been using her brain unwisely and wearing herself out with troublous thoughts. Certainly it would seem that this frequent association of the pain with psychopathy cannot be just a coincidence, and, actually, the experience of psychiatrists indicates that *one of the common initial symptoms of psychoneuroses and psychoses is pain*: pain for which no local cause can ever be found. The assumption must be that the cause is in the brain. Further proof of this is to be found in the fact that abdominal pain can be produced by a brain tumor, by psychic shocks, fear, encephalitis, intracranial thrombosis, migraine, and epilepsy.

Really, one of the greatest needs in medicine today is a widespread knowledge of this fact that with the psychoneuroses goes pain, and pain of a recognizable type. Fortunately, I learned early in my career that pain can be of psychic origin by noting that in the case of a young woman with a mild cyclic insanity and pathologic and prostrating fatigue, the successive removal by optimistic surgeons of the appendix, right uterine adnexa, right half of the colon, and the gallbladder did not affect the pain in the right side of the abdomen. In another highly nervous girl with a similar pain the cutting of all known nerves to the cecum and ileum did not bring relief.

One reason for suspecting the nervous origin of these pains is their constancy. If they were due to organic disease in an abdominal organ they would probably come only in occasional spells. As everyone knows, the woman with gallstones, after having a colic or two, will often go for

years without pain, and aside from some flatulence after dinner, she will have perfect health. Similarly, a man with a stone in his kidney may go for months or years without a pain, and the man with a spine full of arthritic spurs may have only one or two attacks of lumbago in his life-time.

In order to get patients to see how a pain arising in the brain can be felt in the abdomen, I remind them that when the "funny bone" is hit at the elbow, the little finger and half of the next one burn as if they were in hot water, and I explain to them why this happens. I tell them also of the soldier with an old painful amputation stump who continues to feel the pain even after the leg is taken off at the thigh! This shows that after a pain has been present for a long time, pathways through the brain are so "grooved" that the person is likely to go on suffering after the original exciting cause has been removed. This probably explains why, in the case of a neurotic woman, pain which years before seemed to start in an infected tooth, tonsil, or appendix, goes on for years after the removal of the offending organ.

Migraine Equivalents. An example of an abdominal pain due to a storm up in the brain is to be found in the migraine equivalent, in which a patient complains of sudden attacks of abdominal distress or pain, usually with much vomiting for from one to three days. Sometimes then one can get a story of sick headaches in the past or of "biliary vomiting" in childhood. Perhaps the woman will admit that years before she had a little headache and a scintillating scotoma before a vomiting spell started. Perhaps she used to have attacks in which there was much headache and little abdominal distress, but as years passed, the headache component almost disappeared, while the abdominal component came to the fore.

Epilepsy Equivalents. I have seen relatives of epileptics who looked like epileptics and had delta activity in their electro-encephalograms. Some had peculiar upper abdominal or lower thoracic pains which I thought were due to some sort of storm coming down the vagus nerves. Several of the men patients had peculiar difficulties in ejaculating semen, which were due evidently to a nervous defect. Several ejaculated prematurely and one couldn't ejaculate at all except occasionally during sleep.

Pain Due to Feelings of Rebellion. I have seen pain come in the abdomen when a patient rebelled strongly against a situation to which she had to acquiesce, and I have seen such pain go the minute the woman realized what had taken place. Similar pains can come to persons who get very tense.

Abdominal Pain Due to Fear. As I said in the first chapter, distress or psychic shock or fear can cause a pain to shoot into the abdomen. As many people say, "Anxiety will tie my bowel into knots," or "Fear will hit me in the pit of the stomach."

Pains Due to Infection with Neurotropic Viruses. Sometimes I remind a patient and his doctor that there can be terrible pain for months after an attack of "shingles," and it is known that such pain is produced by an invasion of a posterior root ganglion by a neurotropic virus. Why shouldn't other pains be produced in a similar way, and why shouldn't there be zoster-like pains without vesicles? I know there can be because I have seen cases in which the pain preceded by days and outlasted by months or years the coming of the skin lesions. I have reason to believe that some of the many postinfluenzal or postcoryzal pains are due to an attack by neurotropic viruses or perhaps to some virus that is responsible for arthritic or fibrositic types of soreness. Every so often I see an association between a fibrositic type of pain all over the body and a mild nervous breakdown, but as yet I do not know what, if any, significance there is in this association.

PAINS DUE TO CHEMICAL CHANGES IN TISSUES

Sometimes I find it hard to convince not only the patient but also the family physician that it is unwise and almost certainly useless to operate and search the abdomen for a cause for what seems to me to be a definitely nervous or metabolic type of pain. The doctor would doubtless find it easier to agree if he could see, every day, as many patients as I do with these syndromes and with the scars on the abdomen of several futile abdominal explorations.

I often remind the doctor how many tissues there are in the abdomen which might be diseased, and how many physiologic functions there are which might easily be deranged in the absence of even microscopic changes in the cells. I remind him that fifth nerve ganglia that have been removed for the relief of tic douloureux usually show little if any histologic abnormality. In a dog, billions of liver cells killed by a long period of chloroform anesthesia will for a time stain normally, and a kidney that has stopped all output of urine may still appear normal histologically. For that matter, every so often a pathologist looks up from a necropsy to admit that he does not have any idea why the person died. In such cases Dr. H. E. Robertson speaks of a "physiologic death" due to the exhaustion of or cessation of some important chemical process. Obviously, many a

disease must be due to some chemical change in tissues that continue to look normal enough.

A few years ago it was shown that the injection into the tissues of even a dilute solution of sodium chloride will cause severe pain much like that of a bee sting. More remarkable is the fact that in the case of a patient with the abdomen opened under local anesthesia the pouring over the peritoneum of a physiologic solution of sodium chloride can cause great pain. For that matter, even air or gas injected into the peritoneal cavity can produce excruciating and uncontrollable pain under the diaphragm. The bite of a black widow spider produces terrible abdominal pain, but in those many cases in which the abdomen was explored by mistake, no abnormality was found.

Once, while studying a woman with a bad case of pseudocholecystitis with colics due at least in part to food allergy, I was impressed by the fact that when she had a T-tube in the common duct, a colic came when the bile changed from the normal thin, golden yellow fluid to a thick, stringy, blackish substance. This suggested that the soreness in the liver and the pain were due to some change in the metabolism of the liver cells.

An example of terrible pain due to deranged metabolism can be seen in the big toe joint during an attack of gout. Similar very painful chemical changes occur when chilblains form, or when frostbitten fingers are being thawed out. As Sir Thomas Lewis has shown, when blood vessels are narrowed so that the circulation to a muscle is impaired, exercise of that muscle will produce severe pain which is due to the accumulation of irritant metabolites.

PAINS DUE TO VASCULAR DISEASE

There are some forms of arteritis and phlebitis which are decidedly painful, and lesions of this type have been observed in the abdomen. Perhaps some day we will be diagnosing Buerger's disease of the mesentery. Hemorrhages into tissues, arterial emboli, and venous thromboses can be very painful. Patients with purpura sometimes have crises of abdominal pain. I remember a woman who, during the course of years, suffered with crises of severe pelvic pain which eventually were found at operation to have been due to hemorrhages into a dermoid cyst.

FOOD ALLERGY

In all puzzling cases, especially of flatulent pain or pain around the liver, I like to inquire if the trouble seems to have a relation to the eating

of some food to which the patient is sensitive. This possibility must be thought of all the more if the patient or some of his near relatives are allergic so that they suffer from hay fever, a stuffy nose, eczema, hives, or asthma. If the patient knows his sensitiveness to some foods, inquiry must be made to see if he is still partaking of them in some disguised form.

ADHESIONS

Many physicians and surgeons, puzzled over an abdominal pain, make a diagnosis of adhesions, but I fear this is unwise. Certainly the results of operations for adhesions are usually unsatisfactory. Adhesions are common, and in my experience they rarely cause pain. I believe it was Osler who used to say that "adhesions are the refuge of the diagnostically destitute." I doubt if at the Mayo Clinic an operation for "adhesions" is listed once in five years. Our roentgenologists do not attempt to make this diagnosis. I remember Russell Carman's telling me in 1917 that he had long before given up trying to diagnose them because at operation the surgeons usually found him to be wrong. Adhesions produce symptoms, of course, when they give rise to intestinal obstruction.

PAIN THAT RETURNS AFTER AN OPERATION

As I point out in more detail elsewhere, when a patient returns with pain after a cholecystectomy a detailed history will have to be taken to see if gallstones were found, if there were many of them, if any were in the common duct, and if this was explored or drained. If it drained longer than six weeks this would suggest that a stone was left near the ampulla. Naturally, if a lot of small gallstones were found and some were in the ducts, the chances of a stone having been left will be much greater than if no stones had been found and if there had been no colics before the operation. If the history suggests that a normal gallbladder was removed, there is little likelihood that the pain which persisted or returned *ever* had anything to do with the gallbladder.

It helps to find out if the pain felt since the operation has the same characteristics as that felt before. The presence of chills, fever, and slight jaundice will suggest the presence of a stone in the common duct.

When pain returns after gastro-enterostomy or gastric resection, I want to know if an ulcer was present originally, and where it was. Jejunal ulceration practically never follows an operation for *gastric* ulcer. Most helpful in diagnosing jejunal ulcer is the discovery that there has been a shift in the location of the pain from the epigastrium, where it used to be

before the operation, to a point a little below and to the left of the navel. This means that there has been a shift in the pain from the duodenal to the jejunal area of reference on the abdominal wall. When the pain returns in the old place it suggests reactivation of the old ulcer.

SPONDYLITIS

A considerable percentage of the patients who are referred to a gastroenterologist because of abdominal distress and soreness are really suffering from the stabbing or aching pains or the burning distresses of spinal arthritis and its associated fibrositis and neuritis; and it is unfortunate that so often the true nature of the disease is not recognized. The mistake is made because at college so few of us physicians were made to see how common spondylitis is in persons past middle age, and how deceptive the symptoms can be. As a result, many of the patients with this disease are now going about receiving diagnoses of peptic ulcer, chronic appendicitis, angina pectoris, cholecystitis, or pleurisy.

Usually the true diagnosis could easily be made if the physician would only stop to ask a few questions that would show that the pain is probably not arising in the heart or in any part of the digestive tract. The technic for doing this is given elsewhere in the chapter on the taking of a history. In many cases of this type one can be certain after a few minutes of questioning that the pain is typical of spondylitis and that there is no sign of indigestion or disease in the digestive tract. In a few cases, however, the problem is difficult because apparently associated with the pain or soreness in the abdominal wall, there is some indigestion. This may be coincidental and without any relation to the pain, or it may be produced reflexly. It may perhaps be due to a "storm" of some kind which, arising in the irritated spinal segment, runs out along the autonomic nerves to upset the functions of the bowel. In such cases one needs all the experience and clinical judgment one has to distinguish between intra-abdominal distress due to some functional disturbance and distress out in the abdominal wall due to the spondylitis.

Usually it is easy to recognize pain of spondylitic origin because of its tendency to get worse when the patient rests and better when he gets up and walks around. Sometimes, after sitting for a while in the physician's office, a man will have to get up and walk a little to get comfortable. In the worst cases, he may be wakened at daybreak by the pain, and forced to get up to move about and "warm up."

Some of the pains are momentary knifelike stabs, while others are

long-lasting aches. They are likely to be felt in the thoracic as well as the abdominal wall. Occasionally, the pain will follow the path of a spinal nerve, and sometimes there will be a burning spot about the size of a dollar near the center line either behind or in front; an area which represents the skin distribution of the end of a spinal nerve. The nerves are probably involved in the inflammatory process as they emerge from the spine, and as is always the case with afferent nerves injured somewhere along their course, the distress is referred by the brain out to the endings in skin or abdominal wall or intestine.

The diagnosis is strengthened when one gets a history of attacks of lumbago, cricks, wry neck, sciatica, and generalized arthritis or fibrositis, and when one finds with the roentgen rays arthritic changes in some of the vertebrae. Lack of such changes, however, does not rule out the presence of spondylitis. The severity of the symptoms is not correlated with the severity of the changes in the bones.

Often I learn much about a patient's distress by grasping a fold of the abdominal wall, external to the muscle, and pinching it as I lift it up. I may then find it hypersensitive, either in the region in which there is pain, or else all over the abdomen. Then I ask the patient if he thinks his pain is inside the abdomen or out in the wall and he answers: "It is out in the wall. For years I have been trying to get you doctors to see that my pain is outside and not deep within the abdomen." Pains of this type may be due to the fibrositis or myositis or neuritis which is related to the spondylitis.

Treatment. Commonly all one needs to do with these patients with spondylitic pain is to explain the situation and be positive about the diagnosis. Usually, the distress is so mild or so transient that the patient can stand it easily, and then he does not care to spend money doing anything about it. The only reason he was complaining about it was that he wanted to be sure it was nothing serious. He wanted to be sure it wasn't going to turn into something like an ulcer or cancer. Once assured of this, he will often say, "The deuce with it," and will go off happy.

The patient who does want something done must go to a physical therapist for baking and massage. In the worst cases an orthopedist may want to prescribe a reinforced corset or a dose of roentgen rays. Sometimes it helps to inject the tender subcutaneous segment with a dilute solution of procaine.

In two cases in which pain was limited to the distribution of one inter-

costal nerve, I had three spinal nerves cut: the affected one together with the one above and the one below, and the distress was then relieved.

SOME PUZZLING TYPES OF PAIN

There are a number of oftentimes puzzling types of abdominal pain, the most common of which I describe elsewhere in this book under the headings of *pseudo-appendicitis*, *pseudo-cholecystitis*, and *pseudo-ulcer*. There is a chronic pain or soreness which comes in the left hypochondrium and for which I can rarely find a local cause. Often I think it is due to spondylitis. Rarely it is due to a coronary thrombosis but then the diagnosis is usually easy because the pain comes when the man walks fast. Pain around the cecum can be due to amebiasis.

Occasionally pain in the lower abdomen will be due to a *hernia* or to the distention of a large internal inguinal ring by a knuckle of bowel, and then it is likely to come after the patient has stood for a while. It is possible that in rare cases, puzzling pain is due to a small ventral or umbilical hernia. I have seen several cases in which it was due to the passage of most of the small bowel through an opening left when, after gastro-enterostomy, the edges of the rent in the transverse mesocolon did not adhere where they were sewn to the stomach.

In rare cases, a pain will suggest a tabetic crisis, but all tests for syphilis will be negative, the spinal fluid will be normal, and the reflexes will be present. Such cases have been described in the literature under the heading of *pseudo-tabes*. Some were probably cases of duodenal ulcer penetrating into the pancreas.

Severe colicky pains can be found in some cases of diabetes. The pain of cholecystitis may be so atypical as to deceive good clinicians, especially when it comes under the lower half of the sternum. Doubtless some unexplained abdominal pains arise in pancreatic disease. It is possible that pain is due sometimes to a pinching of a loop of bowel between the liver and the right leaf of the diaphragm.

When there is distress around the navel or in the right lower quadrant of the abdomen, I want to know if the patient ever had an acute attack of pain which could have been due to *acute appendicitis*. Did a stomach ache ever begin about the navel, move into the right lower quadrant, and then keep the patient awake all night? Was a doctor called and did he diagnose appendicitis? If so, then there is a chance that removal of the appendix will give the patient good health again.

Especially when a nervous woman complains of pain in the lower

abdomen one should ask about episodes in which the *colon gets sore and secretes much mucus*. Usually such colics follow psychic strain such as that associated with entertaining or going out to dinner. Perhaps after a particularly severe attack the patient passed strings of mucus.

I am always on the watch for the type of abdominal pain which is due to *constipation*. I want to know if the discomfort disappears when the patient gets the bowel clean with a purge or enemas. Epigastric pain which is due to constipation may resemble that of ulcer in that it can be helped by the taking of food.

Occasionally a patient with a puzzling syndrome of abdominal distress, perhaps with cramps, constipation or diarrhea, nausea, vomiting, or pain right after eating, will develop symptoms and signs of peripheral neuritis with paresthesias and perhaps a drop foot. Then one must think of poisoning with *lead* or *arsenic* and must have the urine examined for these metals.

Pain in the lower abdomen with diarrhea and fever should make one think of chronic *ulcerative colitis* or *regional stenosing enteritis*.

Abdominal distress coming with constipation in a person past middle age causes me to ask about symptoms of *intestinal obstruction*, such as rhythmic pains, perhaps the rising up of a loop of gut, gurgling, loud borborygmus, anemia, or the passage of a little blood from the rectum. When there have been attacks of severe constipation with pain in the lower left quadrant of the abdomen, fever, chills, and perhaps irritation of the bladder, I think of *diverticulitis*. The fact that there have been similar spells in years past will help greatly in differentiating diverticulitis and cancer of the colon.

Abdominal Pain Due to Colds and Infections. Some persons suffer with abdominal pain or soreness just before or during or for a few weeks after a cold or an attack of so-called "intestinal flu." Sometimes then there will be hunger pain resembling that of ulcer. The muscle of the tract will then be so irritable that anything—even water—taken into the stomach will cause distress. Sometimes the syndrome will be largely that of an irritable colon. Sometimes every food eaten will seem to turn to gas.

Pain Suggesting Ureteral Dyskinesia. Occasionally a pain is so typical of ureteral colic that in the absence of any sign of stone one must suspect that there is some in-co-ordination of the ureteral contractions, or that gravel is being passed. Sometimes there will be a slight enlargement of the kidney pelvis for which no cause can be found. I remember a young woman who had, at the time of her menstrual periods, attacks of pain

on the left, strongly resembling ureteral colic. Urologists could find nothing wrong with the left ureter, but at operation a diseased left ovary was found, and when this was removed the woman was well. One can only wonder if in some way inflammation around the lower end of the ureter produced swelling or spasm there and temporary obstruction. I have seen several other such cases in which I felt there must be some abnormality in ureteral peristalsis. In one case this type of pain was so severe and disabling that I got a surgeon to drain one kidney pelvis into the flank, and with this the woman got immediate relief. Later the relief was made permanent by removing the kidney.

Dyskinesias in General. It is possible that other pains are due to abnormal contractions in other muscular tubes, such as the bowel and the common bile duct, contractions which do not progress smoothly in one or the other direction, or which force material up against a sphincter which will not relax. The work of Atkinson and his associates in Ivy's laboratory (1940-1942) suggests that traveling contractions do not hurt, while those which tend to stay in one place may.

Diaphragmatic Hernia. Diaphragmatic hernia is so common that in all cases of puzzling upper abdominal and thoracic pain I try to remember to think of this lesion and to ask the roentgenologist to look particularly for it. If I do not do this he may miss it. Sometimes I ask if at any time there was an automobile accident with the crushing of the chest against the steering wheel. I ask about dysphagia, distress after a big meal, or distress which is worse on lying down or bending over to tie shoes.

Pain Associated with Cardiospasm. A puzzling type of pain may come as the first sign of cardiospasm, before dysphagia appears. The distress may resemble that of coronary disease, going down the arms and up into the neck, or it may so closely resemble gallstone colic that the patient's gallbladder is removed. The pain may be so severe as to require morphine. It may come with swallowing, but more often it will come by itself. The frequency of its occurrence, its evanescence, the absence of tenderness over the liver, and the presence of a normally functioning gallbladder should help to rule out cholecystitis. Sipping water may give relief.

Usually as the cardiospasm becomes more marked and the esophagus dilates, the pain disappears. With the coming of dysphagia the diagnosis becomes easier.

Low Abdominal Pain Due to Posterior Urethritis. In an occasional case

of posterior urethritis the patient will go to the gastro-enterologist because of distress in the lower abdomen. Sometimes, then, one can get the story that the trouble followed the appearance of a morning drop, and the urologist finds a chronic inflammation of the posterior urethra. When this condition is cleared up the patient gets well.

Prostatic Cramp. There is a type of severe cramplike pain which some men feel occasionally in the region of the perineum. It lasts perhaps five minutes and sometimes follows sexual excitement that did not end in an orgasm. I think it probably is due to a cramp in the muscle of the prostate gland.

A Gonorrhreal Patch on the Peritoneum. One of the rare causes of puzzling abdominal pain in women is a small area of subacute peritonitis due apparently to infection with gonococci. Usually the diagnosis is made only at an exploratory laparotomy.

Pain Due to the Injection of an Allergen. I have seen and read of cases in which abdominal pain developed when an allergist, trying to desensitize to some pollen, injected doses of the allergen larger than the patient could tolerate. What the mechanism of such pain is I cannot guess.

Distress Arising in the Aorta. Some women with a flabby abdominal wall and the anterior surface of the spine easily felt in front will complain of a throbbing or a "beating" which can easily be shown to arise in the abdominal aorta. Sometimes the aorta is tender to the touch, and then the physician will suspect that it is atheromatous and ulcerated.

Pain and Soreness in the Xiphoid Appendix of the Sternum. Some persons complain of pain and soreness in the tip of the sternum, and a few become alarmed, thinking it means serious disease in heart or stomach. Actually, there can be little doubt that the soreness is due to an arthritic type of inflammation in the tissues about the joint between the manubrium and the xiphoid appendix. This impression is strengthened by the fact that some of the patients seen with this distress are suffering with arthritis or fibrositis elsewhere in the body. Certainly in the cases I have seen the cartilage was decidedly tender to the touch. I need hardly add there was no disease demonstrable in the heart or the stomach.

The Side Ache of Runners. Many young persons, when they run, suffer from pain and soreness about the tip of the tenth rib. This pain may be so severe as to interfere with an athletic career. The best explanation I have seen for it is the one given by Treves. He believed it due to an

arthritis of the joints which connect the movable tip of the tenth rib with the end of this rib and with the ninth rib above.

I have seen the condition so bad in runners that an area of skin some 15 cm. in diameter, with the tip of the tenth rib as a center, was red and swollen and sore. The pain can be helped by applying a tight binder around the lower ribs.

PERSONS WITH PAIN WHO GET INVOLVED IN A VICIOUS CIRCLE

Not infrequently I see a person, usually a woman, who has gotten caught in a vicious circle. For months or years she suffered pain which interfered with sleep and rest, and finally with work and the earning of the daily bread. With this there came nervous exhaustion and a hypersensitiveness which made the pain even more distressing, more constant, and more debilitating. Then, perhaps, a surgeon operated, hoping to find and remove the cause of the pain, but unfortunately his efforts only brought more exhaustion, and with this, less ability to bear the pain. Now the woman is spending many hours of the night, not only in pain, but in fear that she will never find relief and that she will soon be penniless and without a haven anywhere.

Under such circumstances I always fear that the more I work on the place where the pain is felt, the more harm I will do. The main trouble is probably no longer there but up in the brain. The only hope I would have of helping the woman would be to get her to rest, and in this way to lower the irritability of the nervous system. But usually she cannot afford to rest. Worse yet, even when a comfortable haven and some money can be found for her, it may be impossible for her to get rest while the pain is so constant and sleep so hard to get.

Usually in such cases the giving of the ordinary analgesics such as aspirin has no effect, and the use of morphine is almost out of the question because of the probability that habituation will result. Worse yet, usually by the time the woman has become incapacitated she has become so accustomed to barbiturates that they no longer give her good sleep. Often in this stage there seems to be little that anyone can do to break into the vicious circle, and that is why, when I see a woman drifting into such a state I beg her to stop work right away, and get the rest before it is too late.

Often, when I get to know such a patient well, I find that she has several handicaps to keep her from getting well. One is usually a bad nervous inheritance, another, years of foolish living with poor mental

hygiene, another, hypersensitiveness, and another, perhaps, unhappiness over some unfortunate love affair, the painful memories of which she cannot shut out.

I often wonder how such persons can go on living year after year as they do. I have seen a few pull themselves together and get well, but I suspect that most of them live on for years as chronic invalids—terrible problems to themselves, their family, and their physicians. One great difficulty is that when a woman gets into this state, the analysis of her problem is beyond the capabilities of any but the most experienced and gifted consultant. Only with great clinical wisdom can he hope to decide wisely as to the possibilities of helping the girl with more surgery. But a man of this type is so busy that it is hard for him to stop and spend the hour that would be needed just to go over the long record—granting that the woman has a copy of it. As a result, when she goes to an eminent consultant all he can do generally is to turn her over to an assistant, whose usual impulse is to put her through the whole diagnostic mill again. This, of course, she neither needs nor wants. Another trouble she has is that every sensible physician will hate to tackle the problem because he can see clearly enough that there is not much chance of his doing the woman any real good. In spite of all this, eminent and terribly busy men do tackle these problems day after day, and they do it when they know full well that the family will help the girl only to the extent of paying her hospital bills!

Chapter XII

THE CHRONIC "DYSPEPTIC," AND SOME OF THE THINGS THAT MAY BE WRONG WITH HIM

"Diseases of the alimentary tract very frequently continue to handicap and torment the patient throughout his life, which may be a long one, without undergoing any transformation leading to a fatal issue."—KNUD FABER, *Gastritis and Its Consequences*.

"Adios, my dear Hooker; do be wise and good, and be careful of your stomach, within which, as I know full well, lie intellect, conscience, temper, and the affections."—CHARLES DARWIN.

"It is almost impossible for a confirmed dyspeptic to act like a good Christian."—MRS. STOWE.

"Look at one of your industrious fellows for a moment, I beseech you. He sows hurry and reaps indigestion; he puts a vast deal of activity out to interest, and receives a large measure of nervous derangement in return."—R. L. STEVENSON.

"It is a boresome disease to try to keep health by following a too strict regimen."—LA ROCHEFOUCAULD.

"Eating a lot leads to eating a little."—Spanish proverb.

"He who treats himself has a fool for a patient."—English proverb.

THERE ARE MANY PERSONS IN THIS WORLD WHO SUFFER FROM INDIGESTION all their days without ever finding any organic disease to account for it and without coming to any bad end because of it. Obviously, many are nervous, worrisome, hypersensitive persons; some are allergic to foods; many are constitutionally inadequate; some are stout, healthy-looking persons who "burp" often and have heartburn, and some are thin and perhaps sour-looking finicky persons who are always fussing about their food and always afraid that something will give them indigestion.

Usually a person who fears foods will blame his trouble first on one

article of diet and then on another until he gets to taking little besides perhaps milk, meat, toast, potatoes, and soup. He will say that he cannot touch anything raw, anything acid, anything fried, anything that contains roughage, anything rich, anything warmed over, anything canned, or any dessert. And yet, with all his self-restraint, he goes on suffering just the same. Usually his food must be prepared and served just so, without complicated sauces or any condiments; perhaps all vegetables must be puréed, and the least suggestion that an article of diet was of inferior quality or spoiled or poorly cooked will cause him to reject it. Similarly, if, in a restaurant, the service is poor, or the waiter unpleasant, if a fork looks dirty, if the weather is hot, if there are flies about, if a stranger sits down at the same table, or if a person with some unpleasant deformity comes into the room, the food cannot be eaten, or if it is forced down, it will soon cause distress.

Some "dyspeptics" fall in the group of "health food" faddists, the most extreme of whom believe in living on nothing but whole grains, fruits, or nuts. Some of them belong in what Theodore Roosevelt termed the lunatic fringe of society. Others are hypochondriacs, and a few are colonocentric psychopaths. In some, much of the trouble is due to an exaggerated suggestibility, or to a too-close hook-up between the emotions and the digestive tract. In others I doubt if the nervous system plays much of a part in causing the indigestion. Such persons are often stoutly built, insensitive, and unemotional. In their case, it would seem that there must be some, perhaps inborn, defect in the digestive tract which causes it to function poorly throughout life. One of the common troubles of such persons is severe heartburn which I suspect is associated with abnormal waves running over the stomach and perhaps a little way up the esophagus. Perhaps in these persons the gradient of rhythmicity in the stomach is so poor that it is easy for ectopic foci to develop, especially when the organ is overly distended. That the basic defect is a hereditary one is shown by the fact that in some families the father and several brothers will all be affected in the same way.

"SMALL LABORATORY PEOPLE"

There is a type of "dyspeptic" whom I call a small laboratory person because his indigestion comes if he eats much of anything. It seems that his powers of digestion are limited, and his stomach and bowel, like a small, poorly manned chemical laboratory, can handle only a small amount of work at a time. If the man is careful never to overwhelm the

laboratory with food he will get along well. Especially since studies with the Miller-Abbott tube have shown that some persons have an abnormally short, carnivorous type of digestive tube, I suspect that this peculiarity is present in some of the small laboratory people. It might well account for the fact that many of them do better on a concentrated carnivorous diet than on a bulky herbivorous one. Some of them perhaps have but little ability to handle cellulose.

My father's case was perhaps an example of this congenital peculiarity. A small, sparely built man, who worked at least fifteen hours a day as a physician until he was eighty-four, he said he never felt tired, he did not seem to have a nerve in his body, and he was always cheerful and merry. His bowels always moved well, he had no indications of any allergic sensitiveness, and he rarely had even a cold. With all this excellent health, from youth onward he had to be careful to eat but little at a time; he ate but few foods, and these had to be simply and well prepared. Curiously, he could not seem to digest warmed-over foods. The trouble must have been a functional one because when he died after a short illness, necropsy showed no sign of disease in stomach, small bowel, or gallbladder.

A DEFECT IN THE MECHANISM THAT REMOVES GAS FROM THE BOWEL

It is apparent that in some persons there is a serious defect in the mechanism which normally scavenges gas from the bowel and excretes it through the lungs, but just where this mechanism breaks down or what happens to it is not yet known. Persons who have this trouble are much annoyed by an excessive amount of flatus.

A TENDENCY TO HAVE NON-MOVING CONTRACTIONS IN THE BOWEL

I think it highly suggestive that Atkinson and his colleagues have found that in some persons the contractions which appear in the colon tend to move as painless waves toward the anus while in others the contractions tend to stay in one place or the colon tends to contract systolically. Such contractions, trapping gas between them and putting it under pressure, might well cause cramps.

ALLERGY

Many persons are allergic all their days and when they eat some food to which they are sensitive they appear to get the systolic type of painful contraction in the bowel.

PEOPLE WHO OVEREAT

Much chronic indigestion is due to overeating, which overwhelms even a good bowel's capacity for the handling, digesting, and absorbing of food. This leads sometimes to the production of much gas, probably through the fermentation of carbohydrates. Discomforts such as heartburn and belching are produced also through the over-distention of the stomach which commonly seems to bring about a displacement of the gastric pacemaker to the pars pylorica, from whence waves then run orad to the cardia and on up the esophagus. Any observant persons, while listening to a talk after a banquet, can hear plenty of these waves coming up into the throat of the men about him, causing them to "burp" repeatedly. De Poncins, who lived for a while among the primitive Eskimos, was much impressed with the amount of belching and spitting they do after they have gorged themselves with food. The fatty food which they commonly eat is particularly likely to slow the emptying of the stomach and to reverse the waves coursing over it.

EASY REGURGITATION AND VOMITING

A tendency to regurgitate or ruminante or vomit easily runs through some families. Perhaps in some of them there is a hereditary flattening of the intestinal and gastric gradients so that waves run backward over the stomach with ease. Some of the persons who regurgitate easily belong to families in whom some members are ruminators. This habit bears an interesting resemblance to that of some ancient animal cousins of ours which chewed their cud, or regurgitated their food in order to feed their young.

In many persons easy vomiting seems to be due mainly to an overly close hook-up between the emotions, the vomiting center, and the digestive tract. In others there appears to be a weakness of the sphincter at the upper end of the stomach. I remember a man whose troublesome indigestion was due to the fact that, like some of the birds, he was born without any narrowing of the esophagus at the cardia. To prevent the return of food into his mouth at night he had to sleep sitting up in a Morris chair. He was greatly helped by a reduction diet which took off 50 pounds and perhaps lowered his intra-abdominal pressure.

ATROPHIC GASTRITIS AND ENTERITIS

It is conceivable that some dyspeptics and "small laboratory persons" early in life lose many of the glands in the gastric and intestinal mucosa,

and with this much of their ability to digest and absorb food. It is now well known that in some persons the acid of the stomach disappears by the third decade of life, and by the age of sixty, one person in four is without such acid. Fortunately, most of these persons do not suffer with indigestion. Much may depend, perhaps, on whether there is any atrophic enteritis to go with the atrophic gastritis.

It is to be hoped that before many years have passed we physicians will have practical methods of measuring the amounts of intestinal digestion and absorption in all cases of puzzling indigestion, unexplained thinness, and "functional diarrhea." Perhaps then we will have some idea of what the defects are that cause these troubles.

SLOW GASTRIC EMPTYING

There is a type of dyspeptic whose troubles are associated with a slow emptying of the stomach. I suspect that in many of these persons there is a flattening of the gradients of force in the stomach and bowel. Certainly there is something wrong with the mechanics of the stomach and bowel because in these cases gastro-enterostomy does not cause the stomach to empty any better than it did before.

FLABBY GASTRIC AND INTESTINAL MUSCLES

Some persons probably have a flabby gastric and intestinal muscle. Certainly during those years when, in the laboratory, I was studying the motility of the stomach and bowel in animals, I met with wide differences in the activity of the intestinal muscle in different individuals. Many had a gut which was inactive, weak, and sluggish, while a few had one which was active, strong, and a joy to work with. Dr. W. J. Mayo used to say that at operations he could detect differences between the strong, tonic intestinal muscle in a strongly built person and the flabby muscle of a weak, constitutionally inadequate type of person. One can perhaps see this difference in the strength of smooth muscle in the difference between the strong urinary stream of a strong, healthy woman and the weak, dribbly stream of a frail one.

AN IRRITABLE STOMACH AND BOWEL

Many persons seem to have too irritable a bowel and one that responds to too many stimuli. This is shown in several ways. Sometimes, the minute food is taken or water is drunk, the stomach cramps painfully or the bowels feel as if they were going to move, or they actually do move.

Patients with this trouble may have bothersome diarrhea, and occasionally they will note that foods eaten have appeared in the stools within a couple of hours. As one would expect, in some of these cases the roentgenologist can see that food goes through the small bowel much too rapidly.

In some of these cases in which the bowel is so irritable, waves or ripples can run almost as easily in the reverse direction back toward the mouth, as shown by the fact that the taking of an enema promptly causes cramps and waves of nausea, or an attack of belching, or even regurgitation. The great irritability of the bowel in some of these persons with a lifelong tendency to diarrhea is shown by the fact that in them the smallest dose of any laxative, or the least fear or excitement, or a little chilling of the body will bring about purgation.

I suspect that in some persons this irritability of the bowel is due to a lack of that steady stream of inhibition which I observed repeatedly while working with rabbits. In them the cutting of either the vagus or the splanchnic nerves or both sets usually caused fatal diarrhea, due to an exaggerated irritability and activity of the gut. In these animals I found signs of a nervous and perhaps partly hormonal mechanism which I believe normally keeps the bowel from contracting promptly and throughout its extent in response to the many stimuli that are constantly coming in from other parts of the digestive tract and other parts of the body. I was impressed by the fact that I could knock out this mechanism by producing anoxemia or by giving a toxin such as nicotine, which blocked transmission through ganglionic synapses. After that the bowel tended to contract systolically throughout its extent. Such a situation in man, if it should result from fatigue, or some general infection, or an abdominal operation, would tend to cause cramps or colic and a feeling that gas was trapped in a segment of gut.

INJURIES PRODUCED BY ABDOMINAL DISEASE SUFFERED IN EARLY LIFE

I think it probable that in some "dyspeptics" the digestive tract was injured during infancy or youth by some infectious process. Occasionally the mother of a "dyspeptic" will remark that when he was small he nearly died with "cholera morbus," or some other poorly understood illness, and perhaps once when his abdomen was explored the surgeon found many adhesions which showed that years before there was an attack of peritonitis. This may have arisen in an inflamed appendix or in an ulcer which nearly punched through or which actually leaked a bit.

It is conceivable also that in some cases there was, for years, a heavy infestation with amebae or other intestinal parasites which left a scarred mucosa. Because poliomyelitis sometimes causes severe constipation and seems to injure the extrinsic or intrinsic nerves of the bowel, I suspect that in some cases of puzzling and lifelong indigestion, the cause is a crippling of the intestinal plexuses by an unrecognized attack of infantile paralysis or encephalitis with lesions in the spinal cord or the nervous plexuses in the gut. According to Etzel and others in Brazil, Auerbach's plexus degenerates if the amount of vitamin B₁ in the diet is inadequate.

A DEFECTIVE LIVER

When I remember how numerous and important and complicated the functions of the liver are, I wonder if at times the layman is right when he maintains that his indigestion is due to a sluggish or lazy or poorly functioning liver. I should think that at times some one of the many hepatic functions should go wrong much as the insulin-forming function of the pancreas goes wrong. Theoretically, there should be many diseases of the liver besides those few that we physicians now know how to recognize. In favor of this idea is the fact that many persons with "hepatitis" observed at an operation for the removal of gallstones go on suffering with flatulent indigestion, a sore liver, and even colics. I must admit, however, that against this suggestion that unrecognized hepatic disease causes indigestion is the fact that some persons with a well-advanced but well-compensated cirrhosis and a dye retention of grade 3, enjoy good health and a perfect digestion.

DIAPHRAGMATIC HERNIA

As we physicians have come more often to think of it and look for it, we have learned that a congenital hiatus hernia around the esophagus where it passes through the diaphragm is not so rare as we used to think, and in some of the persons so handicapped, there is much indigestion and distress which can be cured by a repair of the hernia. Details about the syndrome will be found in Chapter XXXIII.

DISEASES OF THE PORTAL VEIN

Seeing that the portal vein is the lifeline of the body through which man gets all his nourishment, it would seem as if we physicians ought to know something about its functions in health and disease. Actually, we know practically nothing about it. The good health of many persons who have enough cirrhosis of the liver to produce much stasis in the

portal vein and its tributaries indicates that a considerable amount of back pressure in these important vessels can be present without producing symptoms. When thrombosis comes, it usually goes on to produce death, with the clinical picture of gangrene of the bowel.

There is a rare disease called primary portal phlebosclerosis. It occurs usually in young people and produces a clinical picture which suggests Banti's syndrome except that the liver is not enlarged and there is no fluid in the abdominal cavity.

DISEASE OF THE ARTERIES OF THE BOWEL

It is now known that disease in the arteries of the brain, heart, and legs is common and highly important in the production of symptoms, and it is known that it is influenced by heredity, diet, and tabagism, but as yet we physicians know little about the effects of such disease in the blood vessels going to and from the digestive tract. In roentgenograms one can often see calcification of the abdominal aorta, and at necropsies on older persons one commonly finds the aorta and its large branches badly ulcerated, but my impression is that these lesions rarely cause recognizable symptoms. When palpating the abdomen of a woman past middle age, I sometimes find an abdominal aorta which is sore to the touch, but why this is I do not know. Sometimes older persons complain that the aorta is sore and that it throbs. Unfortunately, careful clinicopathologic studies in this field are lacking. A sort of Buerger's disease of the small arteries supplying nerves has been observed, and it might well account for puzzling pains and intestinal dysfunctions.

INTESTINAL LYMPH

The flow of intestinal lymph through the lacteals of the mesentery and on through the thoracic duct into the blood stream must have some importance, but little is known about it in either health or disease. I suspect that some day gastro-enterologists will be counting the chylomicrons in the blood after a standard fat meal so as to get some idea of the efficiency of intestinal absorption.

DISEASE OF THE NERVES OF THE BOWEL

The nerves to the bowel must be important, but we know little about their functions and mode of action, and the diseases that would result if they were not working well. As I have pointed out, malfunction may follow for a while after infections like "intestinal flu" or poliomyelitis, or after anesthetization, or the shock of an abdominal operation, and

this may account for too rapid or too slow a progress of material through the bowel, and probably also for cramps, colic, distention, and feelings that gas will not move along the gut. As Mendez Ferreira (1938) found on examining roentgenologically some patients who, after abdominal operation, were suffering with "gas pains," they had no excess of gas in the bowel.

There would seem to be little doubt now that at least one cause for Hirschsprung's disease and cardiospasm is a local absence of or destruction of Auerbach's plexus, with loss of the normal stream of inhibition which there is reason to believe flows from the ganglion cells to the adjacent smooth muscle. (See my "Introduction to Gastro-enterology," page 197.)

INDIGESTION DUE TO DISEASE IN THE CENTRAL NERVOUS SYSTEM

I have many reasons for believing that some of the puzzling syndromes for which we physicians can find no cause originate in hereditary peculiarities in, or acquired organic disease of, the central nervous system. We know that disease of some parts of the brain, and particularly the hypothalamus and the third and fourth ventricles, can cause anorexia, vomiting, and abdominal pain, and can lead to the development of gastric and duodenal ulcers. Why, then, shouldn't less visible diseases of the brain produce curious digestive syndromes? Certainly, abdominal storms are associated with seasickness, migraine, Ménière's disease, brain tumors, epilepsy, and tabes dorsalis. Doubtless other milder storms of this type will be recognized as time goes by. One has only to pick up a book or journal on psychiatry and glance over a few case histories of persons whose insanity began insidiously, to be impressed with the number of cases in which the early symptoms were so suggestive of abdominal disease that the patients had one or more useless laparotomies. Recently I have seen a number of cases in which paroxysmal diarrhea was the only symptom complained of by a person who was going insane.

REFLEX INDIGESTION

Many digestive disturbances can be produced reflexly from disease in the heart, kidney, uterus, or perhaps any organ of the body.

ENDOCRINE DISTURBANCES

The digestive tract can be upset by substances produced in the glands of internal secretion, particularly the thyroid, the ovary, and the suprarenal cortex.

Chapter XIII

CONSTITUTIONAL INADEQUACY

"There are people in life, and there are many of them, whom you will have to help as long as they live."—SIR WILLIAM OSLER.

"In dealing with a nervous patient you should regard the malady before you merely as an episode in the history of the disease."—J. M. CHARCOT.

"She petulantly remarked, "I don't see why I can't have good health like other women." "Madam," I replied, "there has never been a method discovered whereby one can repaint a Model T and make a Packard out of it."—ARTHUR E. HERTZLER, *The Horse and Buggy Doctor*.

"The best physician is the man who can distinguish between the possible and the impossible."—HEROPHILUS.

"The conquest of Fate is not by struggling against it, nor by trying to escape from it, but by acquiescence."—E. L. TRUDEAU.

"The infirm live longest."—Polish proverb.

"So, as we grow old, a sort of equable jog-trot of feeling is substituted for the violent ups and downs of passion and disgust; the same influence that restrains our hopes quiets our apprehensions; if the pleasures are less intense, the troubles are milder and more tolerable;"—R. L. STEVENSON.

"I am happy to report that my frail daughter's talks with you have apparently changed her outlook on life for the better. Since her return she has been a different person—more cheerful and hopeful, and eager to do now what is within her ability, and to be satisfied with that."—From a letter to a physician.

The main trouble with many of the patients I see every day is that they are always weak and tired and full of pain, and always getting sick in one way or another. Many have been operated on several times, but still they aren't well, and they cannot get about and have fun as other people do. Some of the men cannot earn a living, and many of the women complain that they haven't strength and "pep" enough to be a satisfactory wife or mother. They drag around; they cannot do their housework, and they haven't the energy to go out anywhere with husband.

THE HOPE OF FINDING ONE CAUSE FOR THE TROUBLE

Again and again these patients go to some consultant or medical institution with the idea that this time they will get examined so thoroughly that the cause of all their troubles will be found and removed. Again and again they get overhauled, and each time the physician finds some little abnormality or physical peculiarity which he views with alarm and treats for a while. In the chapter on combating diagnoses previously made, I have enumerated the commonest of the diagnoses that are made in these cases and have shown why I do not believe they are usually correct or adequate to explain the syndrome.

THESE PATIENTS ARE GETTING A RAW DEAL

Actually, as I listen daily to the stories these patients tell of their many medical adventures, I gain the disquieting impression that we physicians, in our desperate efforts to find some one bit of diseased tissue on which to blame all their symptoms, are only grasping at straws. Again and again we pounce hopefully on some slight bodily peculiarity and try to correct it, only to realize, after a fruitless operation or months of ineffectual treatment, that we were on the wrong track. With the best of intentions we are giving these people a raw deal: doing too many things to them, and wasting their money.

HOW TO IMPROVE THE SITUATION

The question then is, How can matters be improved? I am sure they can be improved only as more of us physicians learn to recognize promptly the constitutional frailness or sickliness or psychopathy of these patients. We must see quickly that all their manifold troubles are due to the fact that their body and nervous system were built out of poor materials, and that they can never be made over so that they will get well and stay well. We must stop looking hopefully for some one lesion to explain the marked disability, the painful fatigue, the psycho-neurosis, and the aches and pains everywhere; and when, during an examination, we run onto some variation from normal, we must not get excited about it but must realize that it could not account for a lifetime of assorted illnesses. Finally, when we do recognize the functional nature of the syndrome, we must not rest satisfied with the diagnosis of chronic nervous exhaustion or neurasthenia as so many of us are now inclined to do, but must go on to apply a label—constitutional inadequacy—which

will keep reminding us that we are dealing with an inborn and essentially ineradicable disease. As I say to these patients, "The only way in which I could hope to really cure you would be to start with another set of grandparents."

Every so often a physician will write to tell me that I am too pessimistic about these people, and that he can cure them with a ptosis belt or some kind of medicine, but this only shows that as yet he hasn't grasped what I am talking about, or he hasn't seen the procession of these unfortunate persons who, after many medical adventures, are still going the rounds of medical institutions.

HOW TO RECOGNIZE THE PATIENT

How, now, are we to recognize these patients? Well, often it is easy. In many cases the nature of the disease can be recognized from a glance at the lengthy request for an appointment that came in the mail, written on two sides of cheap ruled paper. The long rambling tale of woe, with the evident longing for escape from a life of chronic invalidism and frustration into one of good health and happiness, gives a good idea of what is wrong.

Or when the patient walks into the office, the diagnosis is apparent. There, perhaps, is a frail-looking or scrawny woman, whose tissues were evidently made up out of poor materials. Perhaps the hand of the Potter slipped a bit so that the body is poorly proportioned and poorly put together. Perhaps it looks as if, during the early years of development, the pituitary gland and the ovaries, which preside over sexual development, failed to do their job properly.

In a woman the breasts may be small and nodular, the body hair may be masculine in distribution, the thoracic cage may be long and narrow, the pelvis may be flat and simian in type, and the uterus may be infantile in size and shape.

The curse of inadequacy will become even more apparent as soon as the long story is told of many illnesses, many diagnoses, much fatigue, much disability, and much strenuous but futile treatment. Surely the minute the physician gets this history he should realize that he isn't going to work any spectacular cure, and he isn't going to make the patient over into a "husky" no matter how many localized diseases he succeeds in finding and removing.

It is more difficult to diagnose inadequacy when the patient is a big, well-muscled man or a fine-looking woman. Then the physician will have to depend on the characteristic history of repeated illnesses, many

complaints, and long-continued and surprisingly severe disablement after every little infection, accident, or operation. As a frail, inadequate type of woman once said to me, "Dad may look big and strong, but let him get a pimple on his nose and he'll be laid up for two weeks, just as I would be."

Another way of recognizing the inadequate woman is to watch her as she goes through her tests: a little pain, a little diarrhea, a sleepless night, or some bad news from home, and she will be prostrated and confined to bed for a day or two.

SEVERAL TYPES OF CONSTITUTIONAL INADEQUATES

There are several types of this disease. One of the simplest is to be found perhaps in the *asthenic* person whose outstanding complaint is that he cannot stand much work or excitement or loss of rest. Darwin was a beautiful example of an asthenic. For forty years he never could work more than three hours a day, and he couldn't stand the least excitement or departure from the day's routine. A trip to London, a few minutes at a public gathering, or even a quiet evening with friends, and he would be knocked out, unable to sleep, and shivering and vomiting for several days. The asthenic does not have to be at all psychopathic or inclined to complain; he just cannot stand overwork or strain.

In the case of many inadequate women the main trouble seems to be in the pelvic organs or those glands of internal secretion which regulate menstruation. The ovaries may be cystic and the uterus poorly developed. There will be dysmenorrhea, perhaps sterility and dyspareunia, and before the woman is forty she will probably end up with a hysterectomy.

In another type of inadequacy there is poor resistance to infections of all kinds with poor ability to recover from them. In yet another type there is a tendency to aching and soreness in many parts of the body. There will be backaches, headaches, and arthritic, myositic, fibrositic, and neuritic pains all over the body. A certain number of badly migrainous persons are constitutionally inadequate. Curious are the inadequates who become senile early in life. One finds them selling magazines and pop on trains or working as messenger "boys."

Inadequates with a neurocirculatory type of asthenia are likely to have hypertension with an irritable heart and a tendency to cardiac neurosis. They often have cold, clammy hands, cyanotic legs and feet, a little albumin in the urine, dizziness on changing position, and perhaps a tendency to faint.

Common is the type of inadequacy in which the patient complains

principally of digestive troubles, and in which the symptoms are mainly those of an irritable bowel, indigestion, poor appetite, slow gastric emptying, and difficulty in eating enough food to maintain normal weight. Some inadequates have what I call a small intestinal laboratory which allows them to digest only small amounts of food at a time.

Still more common is the type of inadequate in whom the symptoms are predominantly those of nervousness, worrisomeness, hypersensitivity, and a great fear of illness and death which keeps the victim running to doctors all the time. He may do this because he cannot stand much discomfort or pain; he cannot "take it," as many normal people do, and because of this and his fears, his behavior in the physician's office or the hospital is often peculiar and easily recognizable.

Interestingly, when this peculiar psychopathic make-up is lacking in a poorly built person, and he has sufficient energy, fortitude, "guts," and "ability to take it," he never becomes an inadequate, or certainly never behaves like one. As Robert Louis Stevenson remarked after a lifetime of achievement gained in spite of daily suffering with tuberculosis, a man has good health if he can only do without it uncomplainingly! On the other hand, many a neurotic or psychopathic person is not inadequate and never feels physically ill. Apparently it is only a certain type of neurosis or psychosis that goes with or produces constitutional inadequacy.

IS THERE A NEED FOR A SEPARATE LABEL OF CONSTITUTIONAL INADEQUACY?

Some physicians will probably feel like interrupting me at this point to ask: If it is true that most of these persons are neurotic or psychopathic, why shouldn't we classify them as such and let it go at that; why bother to give them an extra label? My answer is that often I feel the need for an extra label to tell something important about a patient which other labels used alone will not tell. I find it useful to pick out of the groups of the frail-looking, the well built, the neurotic, and the psychopathic those particular persons who do not stand up well to the strains of life and cannot be made over into strong, useful persons, no matter how many localized diseases are found and eradicated.

I feel the need for an extra label also when dealing with those thousands of chronically ailing persons whose symptoms seem to be due partly to a frail body and partly to a poorly functioning brain. For them I like an omnibus term like constitutional inadequacy. Incidentally, some physicians may ask, why not use the term *constitutional* or *biologic inferiority*, and my answer is that this term is likely to be offensive to the patient,

Many a person who might object to being called inferior will admit freely that he is inadequate to stand up well to the stresses of life. If I see that a patient is a bit cast down over this idea, I try to cheer him by pointing out my own woeful inadequacy to earn a living as a prize-fighter. I thus get him to see that all of us in this world cannot be strong enough for every type of work, and some must take the easier jobs.

Some physicians have asked me why I do not use the old term neurasthenia, but I feel sure that constitutional inadequacy is better, if only because in so many of these cases the whole body is frail and it is not the nerves alone that lack strength.

To recognize early the presence of constitutional inadequacy is to save the patient from much futile treatment and perhaps several useless operations. For instance, let us take the case of a young woman with menstrual pain so severe that she has to keep to her bed for a day or two out of every month. If she is otherwise healthy and strong, a surgeon can go ahead and resect the presacral plexus with much hope of working a cure, but, if after talking to her a while, he concludes that she is an inadequate person, he may well refuse to operate because he will then have little hope of making her over into a strong, healthy woman.

It is helpful also in many cases to apply a label which will show the essential unity of what, at first glance, appeared to be a group or a series of unrelated diseases. For instance, let us turn to the record of a frail schoolteacher who, years ago, broke down and became tired out and full of misery. At a university clinic to which she went, the gynecologist blamed her troubles on her dysmenorrhea, the endocrinologist blamed a pituitary-ovarian dysfunction, the neurologist blamed a severe migraine, the psychiatrist blamed overwork and a poor adjustment to celibacy, the orthopedist blamed a twisted spine, the gastro-enterologist blamed a "colitis," and the surgeon blamed the appendix.

Who was right? Well, let us see: During the years that followed, resection of the presacral plexus stopped the menstrual pain, the headaches were relieved by ergotamine tartrate (gynergen), the giving up of the job removed the main cause of fatigue, marriage put a stop to many psychic conflicts, physical therapy helped the back, diet and enemas kept the colon fairly comfortable, and the appendix was removed. *But the woman didn't get well!* She went on being just as tired and full of misery as she was before, and then gradually it dawned on everyone who was taking care of her that, from the beginning, all her troubles had been but manifestations of a constitutional inadequacy.

Now, if this basic defect had only been recognized earlier, as I think it could have been, the woman and her husband could have understood better what they were up against, and if, in those early years, they had acquiesced to the situation, they could have saved the thousands of hard-earned dollars they spent on several wild-goose chases after health.

Another time when I feel the need for an extra label is when I see a woman who *has some organic disease* such as a sacro-iliac inflammation, but who owes practically all her discomfort and disability to constitutional inadequacy. In such cases I like to recognize the inadequacy early before I waste much time on treatments which, even if they should quiet the arthritis, cannot put the patient back to work.

COMMON COMPLAINTS OF PATIENTS WITH CONSTITUTIONAL INADEQUACY

Now, what are the common symptoms of inadequacy? As the reader will already have gathered, the symptoms are many. Perhaps the commonest are those of excessive fatigue, and a lack of energy and reserve strength. Other common complaints are aches and pains everywhere, nervousness, faintness, dizziness, indigestion, poor appetite, loss of weight, regurgitation, a sensitive colon, constipation, palpitation, clammy hands, cardiac neurosis, defective or painful menstruation, dyspareunia, sterility, poor resistance to infection, slow recovery from any illness or injury, insomnia, "chronic fever," "weak eyes," and an irritable bladder.

THE DIAGNOSIS

Inadequacy must always be suspected whenever it is noted: first, that nervous prostration, disabilities of various kinds, and feelings of great fatigue have been present for years without bringing disaster. Sometimes the patient will even end up in the fifties looking fat and healthy. Second, that the severity of the symptoms is out of all proportion to whatever slight deviations from normal that are found on a thorough overhauling. The essential point which can and should often be made to a patient is that *even if she had* the gallstones her home physician feared she had, she wouldn't be anywhere near so ill and prostrated as she is. Third, that the aches and pains are scattered too widely over the body to be explained on the basis of any one lesion. If the woman had the disease in the appendix that she thinks she has, this might account for her indigestion and part of her abdominal distress, but it couldn't account for the rest of her many symptoms. Often I tell a highly nervous woman what I think is a fact, and that is that *there is no disease of the*

abdominal organs which can produce a psychoneurosis. That must arise in the brain.

The diagnosis of inadequacy with hypersensitiveness and neurosis is often made or strengthened as the physician watches the way in which a woman behaves in the office as she submits to the several examinations. She may lie around apathetically, as if too tired to sit up; she may go around in a wheel chair which she could easily do without; she may complain bitterly about procedures which do not bother most patients, and she may be prostrated by every little discomfort.

And when the physician starts treating her, again he is likely to get information of much diagnostic value. At the hospital she may be upset by small discomforts and annoyances, and everything that is done for her may make her worse. Drugs will have unexpected, abnormal, and disturbing effects, sedatives will work like excitants, and a soft diet may cause her more distress than she had on a full diet. In spite of a high caloric intake she may lose weight.

THE CAUSE OF THE TROUBLE

Whatever the cause of this protean syndrome is, I am sure it is not to be found in any disease in any one organ, unless it be the brain. Actually, in most cases I feel sure the primary constitutional weakness is in the nervous system. I feel sure of this because (1) I have found constitutional inadequacy sometimes in finely built men and women, and (2) I have found it so often in the relatives of the insane. I believe the severe forms of constitutional inadequacy are commonly equivalents of insanity. Interestingly, it has been shown that most of the soldiers with "disordered action of the heart," who so often end up as disabled veterans, have near relatives who are insane.

In some cases poor materials seem to have gone into almost every organ of the body. Certainly there must be a tremendous difference between the original physical endowment of one of these frail, always ailing persons and that of a man who, after eighty years of good health, still has his hair, his teeth, his eyesight, and plenty of energy.

Although the symptoms of inadequacy may not show up until a woman is over twenty, the defective tissues must have been there from birth. Naturally, like the walls of a defective tire, they are likely to hold for some time before they blow out. Some persons with an inheritance that predisposes to inadequacy can remain well for years if they can only be spared adversity, overwork, infections, accidents, and operations. It is

doubtful if typical inadequacy can ever be produced by suffering and disease in those persons into whom good materials went at the start of life. Certain it is that in many cases a person with a good nervous inheritance will stand years of suffering without showing any signs of inadequacy. Thus, I remember a merry, dynamic, able woman who kept on running a business for years after she was almost ossified by a very painful form of arthritis.

The main defect in the inadequate person seems often to be lack of that something in the brain that keeps most persons feeling well and unconcerned about health. Perhaps it is this same something that keeps most of us hopeful when we are ill, or enables us to accept discomfort and disaster, and to carry on cheerfully in spite of them.

I feel sure that many inadequates are tired most of the time partly because they use their brains so unwisely and waste so much energy on foolish thinking, silly worrying, conscience searching, jealousies, flare-ups of temper, conflicts with people, and riots of emotion. We healthy persons would be tired out too if we were to use our brains so uneconomically.

HEREDITY OF THE DISEASE

As I have said already, constitutional inadequacy is inherited from forebears who suffered from either inadequacy, frailness of body, poor pituitary development, or some form of psychopathy. Here, let us say, is Bill Jones, who, all his life, is going to suffer from such fatigue and lack of energy that he will be unable to earn a living. My impression is that if he had received at his conception all the bad genes that Grandmother Jones had to hand on, he would have ended up in the insane asylum with melancholia as she did, but seeing that the bad genes derived from her were diluted by fairly good ones from three other grandparents, all Bill got was a bad case of that tired feeling. Variants of insanity commonly heard of as one takes the history of the patients with severe forms of constitutional inadequacy, are shiftlessness, eccentricity, solitariness, dipsomania, suicide, stammering, enuresis, pathologic temper, and feeble-mindedness.

Often I have been impressed by the fact that in certain families constitutional inadequacy, psychopathy, or neurosis, and abnormalities in the functions of the glands of internal secretion seem to be inherited, sometimes together and sometimes sorted out. From this I gain the impression that the genes for these defects are sometimes linked and sometimes separated.

TREATMENT

As already pointed out, we physicians must become more conscious of the importance of this problem of constitutional inadequacy, and we must become more adept at recognizing the victims when they first begin to break down. We must spot them soon after they come into the office. After recognizing them, we must spend much time trying to get them to understand the situation, to acquiesce in it, and to stop hunting for a complete cure.

Oftentimes we can make these persons self-supporting or at least less of a burden to their relatives than they were before, by encouraging them to find work that they can do without breaking themselves down. Often we can give them hope and encouragement by telling them what is true, and that is, that some of the best work of the world has been done by frail persons who suffered from poor health all their days. I often point to Darwin, who, by working only a few hours a day, published a long series of papers and books and changed the thought of the world. Darwin also was wise in moving away from London, where the rush of life made him ill, to the country where he could live and work in peace and quiet.

Sometimes the constitutionally inadequate man greatly needs the physician's help in getting his family, or more important yet, his wife's family, to understand the situation so that they will stop blaming him for his failures to work steadily and to succeed in life. Women often need similar help so that the husband will understand the situation and will be more sympathetic and helpful. I remember a frail little man, aged forty, who came in hoping that some operation could be done to make him over. He was discouraged because he had lost one job after the other through lack of strength to stand the strain. When he worked as a bookkeeper, he broke down because of the monotony and the confinement, and when he tried outdoor work, he broke down because he couldn't stand either walking or auto driving. He was fearful that he would soon have to go on relief.

After explaining his constitutional frailness to him, I asked if there was anyone in the family who could help him. He said he had a wealthy uncle who had several farms for some of which he needed a manager. The patient had been trained in his youth to farm, but years before, the uncle had become annoyed with him and had cast him out. I wrote to the uncle, explaining the situation, and begging him to give

his nephew another chance as a manager of one of the farms. To my delight, the uncle answered saying that he thought my estimate of his nephew's character and hereditary frailness was correct, that he (the uncle) was ashamed that he had not realized long before that the nephew was cursed with the family tendency to frailness and ill health, and that from that time onward he would take care of him.

THE ASTHENIA OF CHARLES DARWIN AND ITS CAUSE

Back in 1912 when I began to try to understand the problems of the asthenic I learned much about their disease through reading "The Life and Letters of Charles Darwin." There I found the story of a man who, for forty years, suffered terribly from weakness, fatigue, headache, insomnia, sinking feelings, and dizziness. It was an effort to walk or even to hold up a book. Work and excitement always made him worse, while resting brought some relief.

As his son Francis wrote:

... It is almost impossible, except for those who watched his daily life, to realize how essential to his well-being was the regular routine that I have sketched: and with what pain and difficulty anything beyond it was attempted. Any public appearance, even of the most modest kind, was an effort to him. In 1871 he went to the little village church for the wedding of his elder daughter, but he could hardly bear the fatigue of being present through the short service. The same may be said of the few other occasions on which he was present at similar ceremonies. (*Life and Letters*, 1:105.)

... Half an hour more or less conversation would make to him the difference of a sleepless night, and of the loss perhaps of half the next day's work. (*Ibid.*, 1:101.)

Whenever Darwin expected a week-end guest he felt the need for inviting another to keep the first one company, because he, Darwin, knew that after talking for a few minutes, he would be too ill from excitement to visit any longer. As he wrote Wallace:

... If I could get several of you together it would be less dull for you, for of late I have found it impossible to talk with any human being for more than half an hour, except on extraordinary good days. (*More Letters of Charles Darwin*, 2:84.)

On account of his chronic illness Darwin left London shortly after his marriage, and settled in the quiet village of Down.

... During the first part of our residence we went a little into society, and received a few friends here; but my health almost always suffered from the

excitement, violent shivering and vomiting attacks being thus brought on. I have therefore been compelled for many years to give up all dinner-parties; and this has been somewhat of a deprivation to me, as such parties always put me into high spirits. (*Life and Letters*, 1:65.)

He dreaded leaving home, and the mere thought of a trip disturbed him as much as did the actual traveling. One of the great complaints of nervous patients is that they cannot stand breaks in routine. This is why a day's vacation poorly spent is often more tiring for them than are several days of hard work. As Darwin said:

. . . I find most unfortunately for myself, that the little excitement of breaking out of my most quiet routine so generally knocks me up, that I am able to do scarcely anything when in London. . . . (*Ibid.*, 1:300.)

. . . The other day I went to London and back, and the fatigue, though so trifling, brought on my bad form of vomiting. (*Ibid.*, 1:351.)

The effect on him of public speaking was what one might have expected it to be. In the following letter he refers to a paper read before the Linnean Society in November, 1860.

I by no means thought that I produced a "tremendous effect" on the Linn. Soc., but by Jove the Linn. Soc. produced a tremendous effect on me, for I could not get out of bed till late next evening, so that I just crawled home. I fear I must give up trying to read any paper or speak; it is a horrid bore, I can do nothing like other people. (*Ibid.*, 2:473.)

I do not feel that I shall grapple with the . . . argument till my return home; I have tried once or twice and it has made my stomach feel as if it had been placed in a vice. (*More Letters of Charles Darwin*, 1:293.)

. . . Mr. Milne having attacked my theory, which made me horribly sick. (*Life and Letters*, 1:329.)

The fact that no physician could ever find anything physically wrong with Darwin and the fact that up until the last few days of his 73 years he never developed symptoms of any organic disease make it fairly certain that his troubles were functional and due to an inherited peculiarity of the nervous system. As soon as I learned that extreme degrees of asthenia such as Darwin suffered from are commonly equivalents of melancholia I started hunting through the biographies of the Darwin and Wedgwood families (Darwin's mother was Susannah Wedgwood) to see if I could find such heredity, and there it was. Much of the nervous defect probably came through Charles' paternal grandfather, the famous Dr. Erasmus Darwin who stammered badly and in other ways was odd.

A strain of weakness may have come also from Erasmus' first wife who was always sickly, and died at the age of 30. Their first son, Charles, stammered. The second, Erasmus, was a listless, hypersensitive, and melancholy dreamer who finally committed suicide. His father is reported to have called him "that poor insane coward." The third son, Robert, the father of the great Charles Darwin, was able but "sensitive to an abnormal degree."

As if this nervous heredity were not bad enough, Charles Darwin inherited a tendency to melancholia also from his mother's stock. According to Pearson, her father had at least one short nervous breakdown. One of her brothers, Tom Wedgwood, suffered terribly from fits of depression with great abdominal distress. According to Litchfield, his biographer, toward the close of his short life "his condition (was) hardly distinguishable from insanity." As would probably happen if Tom Wedgwood were living today, his trouble then was better understood by the family than by the medical consultants who were called in. As Litchfield said:

What the ailment was the best medical skill of the time failed to discover. The doctors seem to have generally agreed that it had to do with the digestive system. Some called it a paralysis or semi-paralysis of the colon. Others would call it "hypochondria." The main feature of the disease was the recurrence of fits of depression in which his misery was intense. (Litchfield, R. B., *Tom Wedgwood, the First Photographer*, London, Duckwith & Co., 1903, pp. 21, 23-24.)

Tom's two sisters failed to marry. The younger one, Sarah, was described as having a difficult nature, very sensitive, very rigid, and with strong views as to how others should conduct themselves.

As one would expect with this poor nervous heredity on both sides, the famous Charles Darwin was not the only child to suffer. His brother Erasmus was, according to West, "An odd figure, a quiet passive personality." No stronger than Charles constitutionally, he lived "in patient idleness," and never worked. In his later years he developed a "fundamental melancholy." A sister, Catherine, "had neither good health nor good spirits" and did not marry until she was fifty-three.

With so much nervous ill health in the family it is remarkable that Charles Darwin's children were as well as they were. Apparently Sir George Darwin had ill health all his life, and one child failed to develop mentally.

Although, as one would expect, physicians were never able to do much for Darwin—they could not make him over—they apparently were able at times to help him a little, to cheer him, and to win his gratitude. There is much to be learned from the following statement by Sir Francis Darwin:

. . . In later years he became a patient of Sir Andrew Clark, under whose care he improved greatly in general health. It was not only for his generously rendered service that my father felt a debt of gratitude towards Sir Andrew Clark. He owed to his cheering personal influence an often-repeated encouragement, which latterly added something real to his happiness, and he found sincere pleasure in Sir Andrew's friendship and kindness towards himself and his children. (*Life and Letters*, 2:526.)

It should be a comfort to the many ambitious asthenics to know that in spite of the terrible handicap which prevented Darwin from working more than a few hours a day, he was able to accomplish much: his twenty-two published volumes fill a fair-sized shelf, his knowledge of scientific literature was encyclopedic, and as everyone knows, he changed the thought of the world. All weak and discouraged persons should take heart as they read the following extract from a letter written by Darwin in his thirty-second year shortly after his return from the voyage of the *Beagle*. His father, it will be remembered, was a physician.

. . . My father scarcely seems to expect that I shall become strong for some years; it has been a bitter mortification for me to digest the conclusion that the "race is for the strong," and that I shall probably do little more but be content to admire the strides others make in science. (*Life and Letters*, 1:243.)

Evidently much can be accomplished by the asthenic who will work a little every day.

Chapter XIV

THE NERVOUS BREAKDOWN AND ITS CAUSES

"Those who have not suffered from a mental breakdown can hardly realize the incapacity it causes, or, when the worst is past, the closeness of analogy between a sprained brain and a sprained joint. In both cases, after recovery seems to others to be complete, there remains for a long time an impossibility of performing certain minor actions without pain and serious mischief, mental in the one and bodily in the other. This was a frequent experience with me respecting small problems, which successively obsessed me day and night, as I tried in vain to think them out. These affected mere twigs, so to speak, rather than large boughs of the mental processes, but for all that most painfully."—FRANCIS GALTON, *Memories of My Life*.

"It has been well said that no man ever sank under the burden of the day. It is when tomorrow's burden is added to the burden of today that the weight is more than a man can bear"—G. MACDONALD.

"The Lord may forgive us our sins, but the nervous system never does."—WILLIAM JAMES.

"A man's efficiency, then, depends upon his habits of mental thrift."—A. MOSSO.

"I have not, now, nervous energy enough for stomach and brain both, and if I work the latter, not even the fresh breezes of this place will keep the former in order."—THOMAS HUXLEY.

"His friends had been spared that most distressing of all human spectacles, those cold gradations of decay, in which a man takes nearly as long to die as he does to grow up, and lives a sort of death in life."—SIR WILLIAM OSLER.

IT IS A SAD FACT THAT TODAY SO MANY OF THE PERSONS WHO GO FROM PHYSICIAN to physician complaining of indigestion and abdominal distress, and getting one expensive overhauling after another and much futile treatment, do not tell their story in such a way as to make it immediately apparent that their real trouble is a nervous breakdown of some kind.

By this term I mean that the patient is finding it difficult or impossible to keep at work or live happily because of the poor and inefficient and painful way in which his or her brain is working.

If only these people would say less about the quivering feelings in the abdomen, the belching, the sore colon, and the aches and pains everywhere, and more about their inability to work, sleep, read, make decisions, meet people comfortably, or sit through a movie, the doctor might promptly sense what their real trouble is. If only they would talk frankly about their years of strain, overwork, unhappiness, or muddled thinking, or their bad nervous heredity, it would become apparent that what they need most is a rest and the sort of help a good psychiatrist could give them. Actually, on many a day in the office, one out of four of the patients I see belongs more in the hands of a psychiatrist or a social worker than of an internist. These persons need to learn how to use their brains more hygienically, they need help in conquering worry and fear, they need help in adjusting to life and its problems, many need a sense of security, many need rest, and many need more income.

EVERY GASTRO-ENTEROLOGIST MUST BE A PSYCHIATRIST

Unfortunately, these patients do not realize how much they could profit by the help of a psychiatrist, and if they did they wouldn't want to be found dead in the office of one. And perhaps this is just as well, because if they were all willing to go to psychiatrists, there wouldn't be enough in the whole country to handle the enormous amount of work. Besides, as Dr. W. J. Mayo used to say, every man in every specialty should be able and willing to diagnose and treat the neuroses that belong in his field. That is to say, the urologist should be able to handle the man with "lost manhood" or psychic impotence, the cardiologist should be able to reassure the man who fears he has heart disease, and the gastro-enterologist should be able to help the neurotic woman to solve the problems that have filled her bowels with mucus and pain.

Every gastro-enterologist who hopes to be worthy of the name and would like to keep from making one serious blunder after another should be learning all he can about the psychiatry of the apparently sane. Like me, he may not have wanted to get into this field of medicine, but he cannot stay out of it and be a safe internist. As England's great psychiatrist, T. A. Ross, used to say, any physician who hasn't a good acquaintance with the neuroses, the psychoneuroses, and the milder psychoses is a terribly dangerous man to let loose on the community because

day after day he is going to be diagnosing organic diseases that are not there, and ordering operations that are not necessary.

DIFFICULTIES IN THE WAY OF CLASSIFYING NEUROTIC PERSONS

If I had been trained as a psychiatrist I probably would be trying in this chapter to classify the troubles of nervous patients under the headings of neurosis, psychoneurosis, and several types of psychosis, but because I grew up as an internist, I am going to write about the problem of "the nervous breakdown" as an ordinary internist looks at it every day in his office. The problem is that of a person who often feels tired out, and either cannot work or is barely able to keep going. His brain is not working comfortably, and the two big questions in his mind and mine are not so much, "What is the name of the disease?" as "What are the influences that have brought on the condition, and what can be done to clear it up"? I immediately want to know if the man has experienced enough strain, overwork, infection, pain, dissipation, or sorrow to break him down, or if he broke simply because of the working out of a poor nervous heredity.

It does not seem to be important or always possible to say that the man has a neurosis rather than a psychoneurosis because some authorities use the two terms interchangeably, and few even of the most eminent psychiatrists agree as to what they should call the mental disturbances they are constantly trying to classify. It would seem highly advisable to discern the fact that a man has a psychosis rather than a neurosis, a hysteria, an anxiety state, hypochondriasis, feeble-mindedness, or a psychopathic personality, but here again, there are no clear dividing lines; people suffer with many different combinations of psychopathic symptoms, and often the definitions do not help much.

Ross's definition of a neurosis is *the taking over of control of a person by the accumulated bad mental habits of a lifetime*. He felt that a person has a psychosis when he is unable to see that his phantasies are unreal. The minute he thinks them real he is over the line into insanity, but actually, the problem does not seem to be so simple as that. I have talked to many pleasant persons who told me of crazy thoughts which dominated them at times. They knew that they were crazy thoughts and they were distressed by them, but when in their grip they did not know how to get away from them.

Bowlby says, "The psychoneuroses are disorders of personality which do not interrupt a person's life to a degree necessitating hospital care."

But to think of them as less serious than some of the psychoses is to be mistaken. As Adolf Meyer long ago pointed out, many neuroses are more distressing and injurious to health than are some of the psychoses. They are more constantly disabling, they are more difficult to treat, and the prognosis is worse. Thus, the woman in an attack of melancholia or mania will probably recover, and then she may never be ill again, while the hysterical schizoid goes through all her life tortured by her thoughts, her stormy emotions, and her bodily discomforts.

I know an able physician who works hard and efficiently every other day. On the alternate day he is as useless and depressed a melancholic as were his father and his grandfather before him. But they were healthy, able men who in the course of a lifetime had only one or two long episodes of depression. I know many persons who have a cycloid, up-and-down type of temperament. They admit that they swing from periods of too great activity and euphoria to periods of depression, but they have a good insight into their problem, and they behave sensibly. I know also a physician who is a paranoid character, always sure that people are plotting against him, but he has perfect health, and only seldom does his insanity cause him to fall out with a patient.

Then there are people like the charming, able woman whom I saw one day refusing to go into a house because through the doorway she had spied a cat! She couldn't explain why she feared the animal; she knew her behavior was not sane, and yet she would not go in. I know another fine, able, public-spirited woman who has always seemed sane when I have talked with her, but who has for years chosen to live in a psychopathic hospital to avoid the tremendous effort she would otherwise have to make to meet people and to face the problems of a world in turmoil. She is the type of person who, in the middle ages, would have sought the peace of a cloister.

Differentiating Insanity and Neurosis. No, there seems to be no way of distinguishing clearly between the sane and the insane, and particularly between the sane person who recognizes the fact that at times he thinks or acts insanely, and the insane person who most of the time acts so sanely and energetically that he becomes well-to-do. My years of study of the sick make me feel that those psychiatrists are right who say that insanity is not a disease like malaria which suddenly attacks a previously normal man. Usually it comes as an exaggeration of a peculiarity in temperament that was always there, and probably recognizable even in childhood. One has only to look about also at the

relatives of an insane person to see many variants and equivalents of insanity. Ross doubted if there were borderline states but it seems to me that there must be plenty of them. What he probably meant was that he could generally tell the difference between the neurotic or psychopathic person who will never go definitely insane and the one who is likely to go clearly over the line.

Just as there are insane persons who are sweet and lovely most of the time, so also there are highly neurotic persons who make delightful friends and satisfactory spouses. Many have a good insight into their weaknesses and their illness; many can "take it," and can avoid causing much annoyance or pain to their loved ones. It is the type of neurotic or psychopathic person who isn't pleasant, who has no good insight into his problem, and who hasn't sense enough to try to reform who gives us physicians most trouble.

Insanity Often Goes Unrecognized by Physicians. The sad fact is that as the practice of internal medicine becomes ever more a matter of merely summing up the reports that have come from laboratory girls, roentgenologists, and specialists, these common and tremendously important nervous illnesses tend more and more to go unrecognized, and only recently have medical faculties begun to wake to the great need of teaching much psychiatry along with laboratory work, roentgenology, and methods of physical diagnosis.

That there is much need for improvement in medical education is shown by the fact that today the consultant physician not only fails commonly to recognize a psychotic patient when he sees him, but if someone later tells him that the man was insane, he is likely to say, "Oh no, he was just unpleasant, 'ornery,' un-co-operative, hard to handle, and full of silly worries. He enjoyed being sick." Some of the cases I have studied have made me suspect that even psychiatrists at times are too reluctant to admit that a patient's behavior indicates insanity rather than neurosis.

SYMPTOMS

The commonest symptom of persons with a nervous breakdown is a sense of painful fatigue which either prevents any attempt at work, or stops it soon after it is started. Usually this miserable tired feeling is worse in the morning when the patient arises, which shows it is not due to the strain of the day's work. As I point out elsewhere in this book, this type of fatigue arises in the brain; it is due usually to a poor nervous heredity and not to any disease that can be found in the body below the neck. In

the worst cases I can often find that some near relative of the patient suffered at times from melancholia.

Another important symptom is an inability to carry on with work. Sometimes the patient stops work because of his fear that he will make mistakes, or that he will find it too hard to meet people or to talk to them. Often the man is spending too much time thinking about himself and his troubles; he may have to push himself to get anything done; he may be unable to concentrate or to make decisions; he may have gotten so irritable that he cannot get along easily with people; he may have lost interest in his work and joy in doing it, and if he tries to talk to an employee or buyer, he may get jittery and perspiring and have to excuse himself and leave.

Usually a person with a nervous breakdown has lost his ability to read comfortably. Not only has he lost his interest in reading, but if he picks up a magazine his brain soon tires and gets tense. The fatigue or distress which he feels in his eyes is in his brain, and it cannot be helped by glasses. The man forgets a paragraph as soon as he has read it, and often he finds himself reading the same sentence over and over again. To me this phenomenon always means that the brain is very tired and functioning badly. It is a danger signal that no person should ever disregard. Usually, if asked, a patient of this type will admit that he cannot sit more than half an hour at a movie. Soon he gets restless and tense, and has to get up and go out. Often this type of patient will say that he can no longer drive a car through traffic; it makes him too jittery.

Usually a patient with such troubles will be found to be suffering from insomnia. He may also be overly emotional so that he will burst into tears at a kind word. Sometimes he will be suffering from the "nervous storms" which I have described elsewhere in this book. With these storms waves of gooseflesh may run up and down his skin, queer sensations in the chest or abdomen may strike terror into his heart; with any strain or excitement he may break out in a sweat, his heart will race, and he may complain of dizziness or feelings of uncertainty.

Another very useful sign showing that a patient has a peculiar nervous system or has slipped into a nervous breakdown is the fact that barbiturates and morphine do not work as they should. They act more like excitants than as sedatives, and usually large doses have to be given before any effect is obtained. The barbiturates may throw the patient into a most unpleasant trancelike state, or they may produce such bad nightmares that he or she does not dare go to sleep. Usually when these patients are

at their worst it is a hard problem to find anything that will give them satisfactory sleep.

CAUSES OF A NERVOUS BREAKDOWN

Once the presence of a nervous breakdown is recognized, the question arises: What produced it or brought it on? There are several possibilities to be thought of.

Fatigue in a Previously Healthy Person. The first thing I want to know when I see a person with a nervous breakdown is: Did he have enough strain or overwork to bring it on, or was he pulled down by an illness, an accident, a series of operations, or a great worry or sorrow with the often attendant insomnia? If so, and his family history suggests that he inherited a good nervous system to begin with, the prognosis is good, and it shouldn't take much of a rest to get the man well.

Fatigue in a Person with a Poor Nervous System. Not so hopeful is the prognosis in those common cases in which a person who inherited a poorly balanced nervous system was upset by the influences which I have enumerated in the preceding paragraph. There is a group of persons whom I often think of as *having come to the end of their rope nervously*. Usually the patient is a young woman who, with a poor nervous heredity and some constitutional inadequacy to begin with, managed somehow to keep going for years in spite perhaps of having to work her way through school, then to work long hours, then to do much for a lot of unreasonable and demanding relatives, then to go through the sorrow of a broken engagement or an unfortunate marriage, then through much illness, and finally an operation or two. To me the wonder is not why such a woman broke down but how she kept going as long as she did. But now, at last, she has broken, and especially when there is no money to fall back on and no good haven into which she can go for a long rest, it is hard to see how she can ever be rehabilitated.

Relatives of the Insane Who Break Down Without Apparent Cause. Perhaps the commonest cause for a nervous breakdown is poor nervous heredity, and particularly the inheritance of some equivalent of insanity. Persons with such an inheritance often break down without any obvious cause. Sometimes on questioning the patient I find that there was some sort of breakdown about the time of puberty, and perhaps another in the early twenties. Oftentimes the only hint as to what the trouble really was will be a remark made by a relative to the effect that during the college days someone had to go and bring the boy or girl home. Usually

it will be found that the person has always been a bit psychopathic, diffident, undisciplined, or hard to live with. Some of these persons are inclined to get into all sorts of scrapes; they pick poor friends, they have unhappy sexual or marital experiences, and they often are a problem and a trial to their relatives.

The prognosis in these cases is usually poor because there is no treatment that will change them much.

Insanity. As I remark in several places in this book, a surprisingly large percentage of the patients who consult an internist because of tired feelings, pains, miseries, toxic feelings, flatulence, indigestion, severe constipation, and inability to work are so insane that they ought to be under the care of a psychiatrist. I describe some of these cases in Chapter XV.

Menopausal Depression. Some of the women who break down at the menopause have only a mild depression while a few have a definite melancholia. More details about their problems will be found in Chapter XVII.

Hyperthyroidism. A breakdown with feelings of great fatigue and weakness will occasionally be due to an unrecognized hyperthyroidism. Mental depression and other forms of psychic disturbance can be due to intoxication by a small goiter, and this must be thought of when a woman who has a good nervous heredity begins to act queerly.

Hypothyroidism. When a stoutish woman past forty begins to feel tired and weak and slowed-up, one had better estimate the basal metabolic rate.

Brain Tumor. Occasionally when faced by a patient with an unexplained nervous breakdown one must think of a brain tumor. Sometimes the fact that the breakdown has lasted for years without the development of any alarming symptoms or signs will help most in ruling out the presence of such a lesion. Among the early symptoms, there can be character changes and an inability to keep at the job. Always in cases of doubt the backgrounds of the eyes should be examined by an expert. A roentgenogram of the head and an electro-encephalogram should be obtained, and a neurologist should be called in consultation.

Encephalitis. Especially when an otherwise unexplainable nervous breakdown followed an infection that was thought to be an attack of influenza, I will wonder if the brain could possibly have been injured by an encephalitic virus. For years I have felt sure that mild forms of encephalitis are commoner than we now think they are. Persons after an occasional cold will be almost incapacitated for weeks. At such a time a man, ordinarily cheerful and energetic, will feel depressed, and will drag around;

his brain will seem dull, and there may be neuralgic pains in the face or elsewhere in the body. Some day we physicians may be able to prove that in some of these cases the brain was affected by a neurotropic virus.

Today we know that there are several viruses which produce encephalitis or meningo-encephalitis. We are coming to see that the virus of poliomyelitis probably attacks most children at some time in their lives, and that the infection can be transmitted to them from adults and children who have a mild and unrecognizable form of the disease. The discovery years ago that a large percentage of rabbits and other animals carry latent in their brains an encephalitic virus made it appear not improbable that some of us men and women do so too. The fact that many of us break out with herpetic blisters when our resistance is lowered a little by some infection such as a cold makes it all the more probable that we are always carrying with us one or more neurotropic viruses which at times may produce feelings of ill health. Recently it has been found that there is a reservoir of bad neurotropic viruses in the barnyard animals and in some birds.

Bacterial Infection. I suspect that some day we physicians will recognize also that in some persons, from time to time, small showers of bacteria enter the blood stream, showers that do not produce chills or noticeable fever or much prostration, but which cause the person to feel miserable or below par for a few days or weeks. I feel sure that such an infection is present when I see a small shower of red nodules appear here and there in the skin of the face. Then, if the patient is at all arthritic, his joints are likely to become painful, and if he has an irritable colon it will probably flare up and get sore. At the time some member of the household may be ill with a cold or sore throat, or a child may be down with some exanthem or unexplained fever. Sometimes a person who has a shower of incipient boils in the skin will be found to have under his fingernails one or more of those small tender petechiae which are seen in some cases of endocarditis.

Thrombosis of an Intracranial Artery. In persons past forty, the sudden coming of a nervous breakdown, the symptoms of which do not afterward get better, will make it probable that there has been a thrombosis of some small vessel within the cranium. Although such small strokes are common in older persons and have much to do with ushering in senility, we of the medical profession are not recognizing them as we should be doing. Because these small strokes rarely affect the centers for hand, leg, face, or speech, and because they often cause nausea, dizziness, vomiting, abdominal distress, anorexia, and loss of weight, the patient usually goes

to a gastro-enterologist and is treated for "acute indigestion" or Ménière's syndrome.

In a typical case the diagnosis is one of the easiest in the world to make and one that can be made from the history alone. The pathognomonic point, when it is present, is that a person who was previously more or less efficient, wide-awake, pleasant, good-natured, comfortable, optimistic, friendly, and hard-working, *suddenly, at a certain minute of a certain day*, became ill and discouraged, miserable, apathetic, depressed, and unable to work.

Curiously, the family often suspects that there was a slight stroke, but usually the attending physician refuses to listen to this, and keeps hunting for some abdominal disease. I don't blame him because I remember how, twenty or more years ago, I was often unable to guess what had happened to these persons. Unfortunately, when I was at college, my teachers had never shown me examples of this common disease, and hence I didn't recognize it when I saw it. As I have said, members of the patient's family commonly make the correct diagnosis because first, they are impressed with the sudden onset of the disease and, second, in many cases they are distressed over the marked change in character that follows. They have the terrible problem of taking care of a querulous changeling. The consulting physician, unless he thinks to ask about it, does not know of this change in character. He may not even be told that the patient is no longer able to work; hence he keeps looking for a lesion in the stomach, the bowel, or the liver.

Often, of course, the diagnosis is not so easy, as when the thrombosis does not injure enough of the brain so that the patient loses his sense of well-being. Then the only striking symptom may be of a sudden impairment of memory, a pain in the face, a burning in the mouth, a feeling as if something was wrong in the heart, or an attack of unilateral painful arthritis with trophic changes. In some cases dizziness and nausea will come only in one brief attack, while in others these symptoms will persist.

In some cases, and especially when the physician has known a man for years, he can make the diagnosis the minute the fellow comes into the office; he will note that the grooming has become poor, and that the clothes are untidy and spotted with grease. The man has lost his appearance of alertness and the spring in his step. His wife, if asked, would say that on a certain day he became an old man, and his business associates could tell of their worry over the fact that he has lost his drive, his initiative, his business judgment, and his ability to make a decision. They know that he

is "coasting on his job," and that he has become perhaps irritable, moody, weepy, or hard to get along with.

Some physicians feel that hypertension should be demonstrated before they can make the diagnosis of a small stroke, but actually, a normal or a low blood pressure is to be expected in these cases. On thinking for a moment, one can see that a thrombosis is most likely to take place when the pressure is low, and that is why, in many cases, the symptoms appear either when the patient wakes or shortly after he or she gets up. Interestingly, the disease appears to be more common in women than in men. I am the surer of the diagnosis when I learn that coincident with the attack, a high pressure dropped to normal or nearly normal.

We physicians ought to try harder to recognize this syndrome, if only so that we can save these persons from much useless and misdirected treatment and much harassment at the hands of solicitous or outraged friends and relatives. Often business associates should be apprised of the fact that the man's career is ended, and that it will be costly to the company to leave him any longer in his job. Often such a man proceeds to ruin his own fortunes through unwise investments and expenditures, or through debauchery due to a loss of moral sense.

Usually members of the family keep exhorting the victim "to snap out of it," to quit his "foolishness" and go back to work, but in almost every case of this type the damage to the brain is irreparable, and little if any improvement can be expected. Often the patient, the family, and the home physician feel that if the gastro-enterologist would only straighten out some disturbance in the stomach or liver or bowel, the patient's mental depression would clear up. Unfortunately, I have never seen any benefit come from work done along these lines. At necropsy the pathologist will find many areas of softening here and there in the brain.

The family should know what the diagnosis is if only so that they can be kinder to the invalid and more patient. Grown children should be made to understand the situation so that they will not lose all respect for a previously fine father. Many of these persons live on for from five to fifteen years, but as time passes they tend to get more of the little shocks, each one of which does further damage to the brain.

Fortunately, in some cases there is no loss of interests, and but little failure in health. As in the cases of Pasteur and Dr. Tilney, the patient will continue to do good work. I knew a man of seventy who, after three small strokes severe enough to fell him to the ground, recovered, and lived on in good health for another ten years.

Premature Senility. Occasionally I see a man, unable to work, who looks old before his time, and then I may suspect that this early senility is his whole trouble. Usually the examination of such a man shows nothing significantly wrong with any essential organ. Sometimes I will suspect that he was always constitutionally inadequate. In other cases it may appear that he inherited poor longevity from a lot of ancestors who did not live long, or he may have more than the usual amount of sclerosis in the blood vessels of his brain.

Occasionally it will appear that the man is worn out from overwork. For years, perhaps, he worked all day and part of the night, without ever a real vacation. Now my impression is that he has gotten out of his body and brain in fifty years all the work that most men get out in seventy years. Usually in these cases I find that the man's boss feels as I do about the breakdown.

The essential point in handling such cases is to remember that there is such a thing as premature senility, and when it comes there is nothing that can be done about it. I remember a man of this type who at forty-five looked sixty-five. His only complaint was that he was unable to work. He could no longer concentrate on his job, and if he tried to work he would get jittery and tense and have to quit. As long as he didn't try to work he was comfortable. Several medical overhaulings had shown no physical defect. I asked him what his work had been and he replied that for most of his life it had been his responsibility to get out each week a well-known magazine with an enormous circulation. He had worked at this job unceasingly and had never taken a vacation. I asked him if he didn't think he had crowded forty years of work into twenty, and he said, "Yes, that is my chief's diagnosis, and my company stands ready to retire me on a good pension." All I could do was to advise him to take it.

Another man of this type was chief detective for a big insurance company. He had worked day and night for years. He appeared to be well, but any attempt to look over a case report would leave him trembling and sweating. As he said, his brain would tighten up and then he couldn't use it. His company retired him on a good pension.

In some of these cases the final breakdown is due probably to sclerotic changes in the blood vessels of the brain and unrecognized little strokes.

The Hysterical Panic That Is Called Heart Disease. Not infrequently I see patients who can trace their breakdown back to an evening when they had what was fairly obviously a nervous chill, tantrum, panic, fainting spell, or "bit of hysterics." A typical case is that of the excitable Jewess

who, after having had a violent argument with husband or child, has a weak spell, which she thinks is a heart attack. Physicians are summoned frantically, but it is some time before one arrives, and in the interval the clan has gathered and become terribly excited and badly frightened. Their panic has been communicated back to the patient, and then if the physician who arrives hasn't the wisdom and the courage and strength of character to state unequivocably that the upset was a purely nervous one, or worse yet, if he falls in with the idea that a coronary artery has become thrombosed, or if he tells the woman she must remain quiet in bed for weeks or months, and later points with alarm to a few small changes in her electrocardiogram, a chronic invalid is made.

Heart Disease. Not infrequently I see a person with a nervous breakdown which followed an attack of definite angina pectoris. The patient survived and came out of the illness with a good cardiac reserve, as shown by the fact that he is able to walk and climb stairs without difficulty, but he became frightened and discouraged and apprehensive, and now he is so demoralized that he does not dare attempt any work. Often in these cases, if the physician will only be encouraging and will keep maintaining that the heart has recovered well from its injury, the patient may regain enough confidence to go back to work. Unfortunately, he is likely, later, to go to a physician for a check-up, and if this man should happen to be a pessimist and an alarmist, back will go the patient to his bed.

Anxiety Neurosis. As the reader will realize from perusing the preceding paragraphs, one of the common accompaniments or perhaps causes of nervous breakdowns is anxiety over some disease which either is not present or is not so serious as the patient believes it is. Because of their terrible and constant fear of cancer, heart disease, or sudden death, many persons go to pieces nervously and have to stop work. Oftentimes their fear is engendered by the coming of some really harmless symptom, or by the sudden death of a relative or business associate. I am ashamed to say that often it is engendered by some carelessly made diagnosis based on one erroneous laboratory report or on a poorly interpreted roentgenogram, or it may be engendered by some pessimistic remark made by a physician. Actually, where I work, I have to spend a good part of each day telling much worried patients that I cannot find a sign of the disease they think they have.

In some cases I can hope to work a cure only by finding out what the fear is, how it got into the patient's mind, and why it is so paralyzing to him. For instance, a business man of forty was well until one day when

he was called to the school grounds to get his boy who had gotten a bump on the head while playing. On seeing the boy with a bandage around his head, the man fainted and, after coming to, found himself a chronic invalid. I finally got him to explain that the slight injury to his boy had had such a tremendous effect on him because during his youth it had been his responsibility to take care of an epileptic brother whose frequent fits began after an injury to the head. As a result of his harrowing experience with that brother, the patient had always had a great fear that some day either he or one of his children would succumb to traumatic epilepsy. Other examples of the injuriousness of such smoldering fears are given elsewhere in this book.

Inability to Face a Problem. Occasionally a nervous breakdown that has apparently come out of a clear sky can be traced back to the patient's having come face to face with a problem that he or she couldn't solve. To illustrate: A young woman suddenly was taken ill with loss of appetite, nausea, vomiting, abdominal pain, and backache. She was unable to sleep and her menstruation stopped. The home surgeon removed the appendix without helping the situation. When I saw the girl she weighed only 90 pounds. I found that the trouble started when her fiancé confided to her that in preparation for their marriage he was having a urethral stricture dilated. She was eager to marry, but she was also much afraid that some gonococci might still remain to infect her. Unable to decide what to do, she went to pieces nervously and became an invalid.

Another girl of sixteen suddenly developed a number of alarming symptoms and went on into a nervous breakdown. When I finally got her to talk, I found that one day, on returning from the convent earlier than was expected and bursting into her mother's room, she found her mother in bed with a man not her father. The shock of this, with all the moral questions it raised and all her strong revulsions of feeling against her mother, had been too much for her. Eventually when I was able to explain to her that her mother and father had married only to please their parents, had not lived together for years, and had kept a home going only for her sake, she forgave her mother and promptly got well. Another girl went into a similar nervous breakdown when she burst into the room of her most adored teacher at boarding school and found her in the arms of a man. The shock of this discovery with the uprooting of the girl's faith in everything had upset her badly.

Many a nervous breakdown in a married woman is due to her realization that her marriage is going on the rocks, or her discovery that her hus-

band has been unfaithful. Flights into illness are described elsewhere in this book.

A Let-Down After a Long Strain. Occasionally I see a woman who, through a period of terrible strain, perhaps with a sick child or mother, managed to keep going bravely, and to keep giving out cheer and hopefulness. For months she seemed to be immune to the loss of sleep and rest, but finally came a day when the invalid either got well or died, and then the woman went to pieces and developed all sorts of curious symptoms.

Migraine. Every so often I see a girl whose nervous breakdown has been brought on or kept up by frequent and severe attacks of migraine. Usually, of course, one finds that it was a vicious circle that pulled her down: first came headaches to tire her greatly; then fatigue made work difficult, and the more tired she got the more often she got a headache. As I point out also in the chapter on migraine, practically everyone with frequent attacks of this disease has that type of tense, hypersensitive, and hard-driving nervous system which, if not rested often, can easily break down.

Carcinoma of the Pancreas. Not infrequently carcinoma of the pancreas produces a puzzling sort of breakdown which, for months, may be looked on by the attending physician as purely psychic in origin. As I point out in a short section on this subject in Chapter XXXIII a mistake is particularly easy to make when the patient is weepy, apprehensive, perhaps demoralized, and suffering with tired feelings and an unexplained insomnia.

Duodenal Ulcer Penetrating into the Head of the Pancreas. As I point out elsewhere in this book, when a previously silent duodenal ulcer penetrates into the head of the pancreas it often produces a puzzling picture of a nervous breakdown for which no cause can be found. Especially when roentgenologists cannot see the ulcer, the diagnosis has to be made by eliciting an old history of hunger pain.

Carcinomatosis or Sarcomatosis. I have seen several cases in which what appeared at first to be some sort of nervous breakdown or perhaps a smoldering infection with a little fever proved at necropsy to be a generalized carcinomatosis or sarcomatosis. Occasionally beginning Hodgkin's disease or an aleukemic leukemia will give a similarly puzzling picture. In several cases the one finding that warned me to proceed warily was a blood sedimentation rate above 75 mm. in an hour. Sometimes, then, a liver function test has shown a marked degree of dye retention which suggested the presence of many metastatic nodules in the organ.

Multiple Sclerosis. Especially in its early stages, multiple sclerosis, with

its widely scattered and puzzling symptoms, may for a time deceive even an experienced neurologist into thinking that he is dealing with an anxiety neurosis or perhaps a form of hysteria. At first there may be only emotional upsets with puzzling abdominal symptoms, but later will come transient visual disturbances, numbness, and fleeting paralyses.

Endocarditis. In rare cases I have seen endocarditis produce for awhile a puzzling picture of a nervous breakdown. Usually before long the patient has to take to his bed, and fever, purpuric spots, and a heart murmur come to help in making the diagnosis.

Tuberculosis. Especially in younger people, the coming of much fatigue and poor health without obvious cause will make the physician think of a possible tuberculous infection somewhere. Fortunately, nowadays the making of a roentgenogram of the thorax is almost routinely a part of a good overhauling, and if the film shows nothing, the chances are that there is no infection in the lungs. When there is doubt about the activity of a lesion in the lung it is helpful to look for tubercle bacilli in the morning fasting contents of the stomach. This is best done with the new fluorescing stain. If the urine should be found to contain red and white blood cells, every effort should be made to find where they are coming from.

Brucellosis. Some physicians feel that when a person has a fatigue state, an afternoon temperature of 99.5° F., and some agglutinins for Brucella abortus, he has brucellosis, but I think usually they are wrong. As I point out elsewhere in this book, in these cases I rarely can find any good evidence to support the diagnosis.

Chronic Appendicitis. Occasionally one will see a university student who, rather suddenly, perhaps after what looked like an attack of acute indigestion, lost his sense of well-being and his ability to study and exercise. After that he dragged around and felt toxic and tired. A certain number of such ailing young people have a smoldering infection in the appendix, and they will get well after the removal of the organ.

Giardiasis. During the years I have seen quite a few patients whose nervous breakdown seemed to be due to an infestation with Giardia lamblia. At any rate, their health returned almost overnight when these parasites were destroyed.

Addison's Disease. Every so often I see a patient with a nervous breakdown who is supposed to have Addison's disease because one blood pressure reading was found to be around 90 mm. Usually, by the time I see the man it is varying between 100 and 110; there is no pigmentation of the skin, and the new urine concentration test gives no indication of Addi-

son's disease. As I point out elsewhere in this book, borderline cases of Addison's disease must be extremely rare.

THE PERSON WHO IS WORN OUT BY MANY EXAMINATIONS, MUCH TREATMENT,
AND SEVERAL OPERATIONS

Often nowadays I see a patient, usually a woman, who a few years before had some kind of a digestive upset due, perhaps, to a cold, a nervous shock, or the eating of some spoiled food at a picnic. Perhaps if she had promptly rested, and had eaten lightly for a few days she would have straightened out. But she went to a physician who thought he saw some amebic cysts in the stools; so two courses of strenuous and exhausting antiamebic treatment were given. Then, because the woman was no better, perhaps the appendix was removed. Following this there was a urinary infection, for the relief of which there was much washing of a kidney pelvis. Later there was a cholecystectomy or a partial hysterectomy. By this time the woman was so exhausted and had so many aches and pains everywhere that the main thing she needed was not more treatment directed to the cure of disease in some one organ, but treatment designed to give her a long and a restorative rest.

Often, as I send a report of my findings in such a case to the home physician, I tell him I know he is in a tough spot, because of the patient's demands that something be done quickly to find her trouble and to cure it, but I feel sure that the more he treats her bladder or colon or pelvic organs or kidneys, the worse she will get. The only way of helping her is to stop treating organs or local diseases or even pains and to begin treating her as an exhausted, discouraged, and frightened human being.

Chapter XV

INSANITY AND RELATED TROUBLES

"Whatever the difficulties may be of deciding whether a patient is psychotic or only psychoneurotic, it is nothing to the difficulty of knowing into which of the traditional psychoneurotic categories we should place him."—JOHN BOWLBY,
Personality and Mental Illness.

"The mind in its own place, and in itself can make a heaven of Hell, a hell of Heaven."—JOHN MILTON, Paradise Lost, I.

UNRECOGNIZED INSANITY

IT WOULD ASTOUND MANY A PHYSICIAN TODAY IF HE COULD ONLY LEARN HOW many mildly but definitely insane persons had gone through his office in the previous month, with the nature of their psychic and physical discomforts unrecognized. The doctor probably recognized the fact that the patient was a bit peculiar and difficult to handle, but it didn't occur to him how serious the situation was. A while ago, on reviewing the histories of all the patients I had seen in a couple of months, I found that one in six had a psychiatric problem. Some of the younger patients looked as if they were headed for dementia precox, a few of the older ones had a manic-depressive type of cycle, and others had a psychopathic temperament.

To show how one has to be constantly on the watch for these people, one day I saw a man who came to the clinic to have a gastric resection for duodenal ulcer. After talking to him a while I felt so sure that his main trouble was a depression that I would not send him in for operation. When he protested and asked the reasons for my refusal, I asked him what he would do if, after the operation, his pain were to come back. His answer was, "I would go head first right out of the window!" And that is probably just what he would have done.

A fine-looking, well-dressed woman of fifty came in with a story of years of distress from gallstones. She expressed a desire to be operated on, and I was just going to send her to the hospital when I got to wondering why she hadn't been operated on long before. When I asked her why not, she admitted that several times she had started for a hospital, but as she

said, always at the last minute her intuition had saved her. What she had sensed was that the surgeon was planning to let her bleed to death on the table so as to get her money! Naturally I promptly suggested to her that her stones were still not quite ripe and she had better put the operation off for a while. This she cheerfully consented to do.

A pleasant-looking woman of thirty came in to have a hernia repaired, but it was hard to do anything with her because she was so extremely sociable that she spent all her time running about the place, meeting as many of the patients as she could. Wondering about this, I asked her if she was always that talkative, and she said, "No," she was then in one of her "elated spells"; later she would be down in the depths, discouraged and weepy and refusing to see anyone!

A business man came to me with letters from several internists who had been trying in vain to find the cause for his "dysentery." Partly because he came from the South, every effort had been made by good clinical pathologists to find amebae or unusual bacteria in the stools, but no one had gotten anywhere working along these lines. After talking to the man awhile I got a hunch from the fact that his diarrhea came in short spells. He would have a few large, soft movements, and then he would be all right for a week or two. This is the story I meet with sometimes in persons who are afraid they are going insane. Then I found that the man hadn't been able to attend to his business for two years. He couldn't put his mind to anything, and evidently he had slipped into some sort of a nervous breakdown. Then I learned from the wife that he had been well until one day when he fell unconscious out of his chair. He apparently had a small stroke because from that moment onward he was a changed person: depressed, moody, reticent, and without any of his old affection for his loved ones or interest in them. After sitting for hours without saying a word, he would suddenly jump up in apparent terror and rush out of the house to pace up and down. Then he would come in and have a loose bowel movement. The only person who had made the correct diagnosis of a mental disease was the old family doctor, but when he saw several big city consultants focusing all their attention on the intestine, he lost confidence in his judgment and said nothing more. The wife said nothing because she wasn't asked for her opinion.

One day I was asked to give a clinic before a group of physicians, and the committee in charge brought into the amphitheater for me a man with what they suspected was chronic appendicitis. According to the history written out for me, the man's complaints were those of indigestion, ab-

dominal discomfort, and nervousness. As I waited for the audience to get seated, I talked to the man and discovered that he was suffering with melancholia. For four years he had been too upset mentally to work; he had been so hard to live with that his wife had left him; he wanted to commit suicide but had put it off because he thought he shouldn't go and leave his daughter destitute.

Actually, we physicians should expect to be seeing mildly insane patients all the time because several surveys have shown that one child out of nineteen born in this land is going to be committed some day to a state asylum for either the insane, the epileptic, or the feeble-minded! And besides these who have to be locked up, think how many there must be who are cared for at home and how many there are who are just eccentric, queer, hard to get along with, frail, and always complaining.

Menopausal Depressions. A fairly common cause of nervous upsets in women is a menopausal depression. It would seem as if this diagnosis should be thought of always and seldom missed, but I have seen it missed time and again by well-trained men who depended too much on the results of laboratory tests. Thus, I remember the wife of a professor in a medical school who, when she began to complain of indigestion, constipation, weakness, and feelings of painful fatigue, was carefully overhauled at the university hospital. Because all that was found was a few amebic cysts in the stools, the diagnosis was made of amebiasis, and she was given two courses of strenuous antiamebic treatment which left her only more prostrated than she was before.

Unfortunately, the assistant who took the history did not draw out the story of the tremendous change that had taken place in the character of the woman. Formerly deeply devoted to husband, children, home, church, relatives, and friends, she became apathetic about everyone and everything. She wouldn't see anyone, she neglected her home, she showed no sign of affection for her husband or even for her previously adored grandchildren. Possibly her physicians would have been helped to make the correct diagnosis if they had known that her father was in the insane asylum with melancholia, but this fact she resolutely concealed. I had to get it from other members of the family. After two years of good care in the home of a devoted sister, this woman came out of her melancholia and was well again.

I have described other cases of unrecognized insanity here and there in this book.

DIFFERENTIATING AN ANXIETY STATE FROM MELANCHOLIA

Often it is important to distinguish an anxiety state or a depressed state from a true melancholia. As Ross has said, the patient with an anxiety state should be encouraged to do more than he feels he can do, whereas the melancholiac should not be bothered with any efforts at treatment. He should be left alone and cared for until he is ready to come out of his depression. The main thing is to keep him from committing suicide.

In making the differential diagnosis, Ross found the following points to be helpful. In the case of the melancholiac, the attack often comes suddenly and for no discoverable reason. Often the person has had previous attacks of depression with intervals of good health in between. The neurotic generally has poor health all the time. The neurotic tends to coddle himself, while the psychotic does not. The psychotic may overwork when he is in the elated stage, but he will usually deny that he overworked. One can usually bring some cheer to the neurotic, whereas all efforts to lift the gloom of the psychotic fail. He can feel neither pleasure nor more distress. He is impervious to further blows of fate, and hence the death of even a mother or a child will not increase his distress. I remember once dreading to have to tell a melancholiac that I had found a cancer in his colon. I needn't have worried, because it didn't bother him.

The neurotic patient usually delights in telling of his physical and nervous troubles, while the psychotic is more reticent. He tends often to blame himself for his troubles, while the neurotic tends to blame other people. The psychotic tends to be slow in his answers, while the neurotic tends to be talkative and quick. The neurotic is often up and down in his moods, changing from day to day, whereas the psychotic remains hopelessly gloomy for months at a time. He may be mentally inaccessible. The neurotic may seem more ill than does the patient with a mild depression, and he tends to complain mainly of physical distress while the psychotic tends to complain more of his mental misery.

ABDOMINAL HALLUCINATIONS

When a man goes to a physician and says that a snake is wriggling around in his abdomen or a frog is hopping about in his stomach, it will be obvious that he is insane, and no effort will be made to relieve him of his encumbrance. But when a man with this same type of insanity and the same sensation in his abdomen interprets it differently and complains that there is an obstruction in his bowel, and that he can feel the gut

fighting against it and sending toxins through his blood and up to his brain, he usually gets operated on, not only once but several times. I remember a woman of this type who had had four exploratory laparotomies in eighteen months, and within a week after she left me she talked a surgeon into performing another one.

The more I see of these persons the surer I am that they are insane and that they have abdominal hallucinations. I have reason to believe also that every day, in the hospitals of this land, one could find many such psychopathic persons with similar but less easily recognized hallucinations, and one could find them being operated on or treated strenuously for supposed abdominal disease. I am not blaming anyone because I feel sure that I must often be doing my share of failing to recognize the true nature of these abdominal syndromes, which originate in a somewhat deranged brain.

I agree with T. A. Ross that these persons are incurable, and hence whenever I recognize one of them I promptly refuse to waste time on him. One reason why these persons find it so easy to get operated on is that many a physician gets the idea that if the symptoms are psychic in origin they should disappear if an operation be performed and then the patient be assured that the disease was found and removed. At first glance it would seem that this should be excellent psychotherapy, but actually it is uniformly ineffectual, and on taking a little thought, one can see why. If a person with a feeling that he had a cinder in his eye were to have his upper lid turned over and were then to be shown a black spot on the tip of the handkerchief used to wipe the conjunctiva, he wouldn't be satisfied even for a minute if his distress was still there. He would say, "You got one cinder out, but the important one is still there."

Similarly, the man with an abdominal hallucination has a distressing sensation which is just as real to him as that of a cinder in the eye. Naturally, then, when he wakes from the anesthesia and feels the old sensation in the same spot, there is only one conclusion possible, and that is that the surgeon failed to find the *real* trouble. What he found and removed was unimportant. For this reason it is useless to try to cure a man with a "frog in his stomach" by giving him an emetic and dropping a palmed frog into the basin. For a few hours the man may be overjoyed, but then he discovers that a lot of baby frogs were left behind!

Dr. Menninger is convinced that many of the largely eviscerated persons whom we physicians see nowadays are animated by a desire to injure themselves or to commit suicide gradually, and he may be right, but I have

rarely gained this impression from talking to these persons. Perhaps suicide was desired by a physician who brought great pressure to bear on his surgical friends to take out first his appendix and then a normal gall-bladder. He had to search some time before he could find one willing to explore his cranium for a brain tumor but he finally found one, and then, if death was what he wanted, he got it.

Some of the middle-aged women who haunt the offices of physicians complaining bitterly of intestinal autointoxication and describing minutely the appearance of their excrement and the details of their discomforts, are mildly and harmlessly insane. They think their brain is being destroyed by toxins arising in the bowel, and so they keep cross-questioning the physician and arguing with him, trying to get him to agree with them. In the meantime they keep taking several laxatives and several enemas a day. Often one can recognize these persons at a glance by their psychopathic facies. The best way to handle such a woman is to let her go to some other physician who, ignorant of the true nature of the trouble, will take pleasure in treating it strenuously.

THE TROUBLES OF THE RELATIVES OF THE INSANE

I see many patients each month whose curious nervous storms seem to me to be equivalents of insanity. I have mentioned some of these equivalents in the chapter on constitutional inadequacy, and in the next section I will mention some of the peculiar syndromes observed in the relatives of epileptics. More on the subject will be found in the chapters on "nervous storms" and nervous breakdowns.

Certainly this concept that the curious nervous storms and symptoms seen often in tense, eccentric, constitutionally inadequate, and ne'er-do-well patients are due to the bad heredity that produced insanity in near relatives has been a useful one to me. Thus, years ago I saw a nervous man with a lot of strange symptoms for which no one could find a cause. He was unable to work steadily at any job, and eventually he retired on a small pension. I told him I felt that back somewhere in his family tree there must be insanity, and that he had inherited a bit of the curse, but he didn't know much about his family and so I couldn't prove my point. A few years later he dropped in just to tell me that I must have been right because some time after he returned home his sister and later a nephew went violently insane. Apparently they had inherited an even larger share of the family curse than he had.

As I point out elsewhere in this book, an extreme type of chronic fatigue is sometimes an equivalent of melancholia.

Some day it is to be hoped that this concept of equivalents of insanity will be worked out so carefully, and the knowledge obtained as to certain syndromes will be so widely disseminated and so deeply impressed on the minds of physicians everywhere that the amount of time and money now wasted on useless examinations, treatments and operations will be cut down.

THE TROUBLES OF THE RELATIVES OF THE EPILEPTIC

Every year I see a number of men who come usually with a diagnosis of duodenal ulcer which I cannot confirm. Sometimes the story is something like that of ulcer but usually it is atypical. Sometimes the patient has the type of pain immediately after drinking a glass of water which indicates the presence of an exaggerated and crampy reaction of the gastric muscle to distention. I remember one of these men who was so irritable he couldn't digest his food if he ate while anyone was present in the room. Another had a puzzling pain under the lower end of the sternum. One had severe headaches resembling those of migraine. All were irritable and some were so irascible they found it hard to hold a job. Several said they would never dare to spank a child for fear they might not be able to stop. Several complained of premature ejaculation of a particularly aggravated form, and one couldn't ejaculate at all. One had a violent reaction to intercourse; it left him badly shaken and with a feeling of having been pounded all over. He also had cramps through his abdomen after defecation. In all of these men the symptoms could easily be explained on the basis of an exaggerated reflex irritability, and actually they all had greatly increased reflexes.

In most cases I got my "hunch" as the patient came in the door because he gave me the impression, with his reddish, surly-looking face, of being an epileptic. Usually, then, I learned that a near relative was an epileptic, but sometimes I could get a family history only of insanity, chronic alcoholism, or violent temper. In one case the man had a child with the uncontrollable tantrums of temper which are now known to be sometimes an equivalent of epilepsy. I include these cases in this syndrome because always the patient looked like an epileptic, he had the typical syndrome of nervous irritability, and, most important of all, he had a typical dysrhythmia in his electro-encephalogram. Up until a few years ago I could not be sure of my hunch that these patients had inherited nearly all of their ancestors' epilepsy except the fits, but now it is most interesting to send a suspect for an electro-encephalogram and to have the report come back, "Much delta rhythm with typical dysrhythmia."

It is worth while to keep watching for these patients because their peculiar symptoms are, I think, understandable only when the relation to epilepsy is recognized.

THE TROUBLES OF THE HYSTERICAL

Ross pointed out that the best time for the cure of a hysterical disturbance is during the first interview. At that time the woman (it usually is a woman) is likely to be in the most receptive mood for a cure. She is keyed up and expectant, and she has not yet gotten so desirous of keeping the physician's respect that she will not want to admit that she fooled herself and others with her illness.

I know that usually when I cure a hysterical paralysis, contracture, or aphonia, I do so at the first interview. Usually all I have to do is to explain to the woman why and how she got into the difficulty. I tell of other patients who became ill in the same way and who were cured suddenly when they learned what had happened to them. I go on to explain that it is no disgrace that she fell ill with a functional disturbance because she couldn't know what it was. Often I explain that all that happened was that she lost confidence in her muscles, and that as soon as she regains confidence in them, she can use them again. I use the simile of the man who could walk a mile without stepping off an 8-inch board laid on the ground but who would be unable to walk 6 feet along it if it were to be used as a bridge across the Grand Canyon.

I may point out to the woman that she can move the supposedly paralyzed muscles a little, and I will argue that if she can move them at all, she should be able to move them well. I may also point out that the areas of anesthesia do not correspond to the distribution of any nerve or group of nerves, or I may say that the absence of certain symptoms (it is well not to say what these are, so the patient will not develop them) shows me that the nerves which she thinks are injured enough to produce paralysis must still be intact and functioning. I may explain also why a certain contracture of the hand must be hysterical because if either the extensors or flexors were paralyzed the hand would be pulled into a certain well known position.

Commonly, then, the woman begins to move the arm or leg, and often she returns the next day with the paralysis gone. But, as Ross has emphasized, this is not enough. This is only the beginning. If the patient is to keep her self-respect, and this is essential, she must be made to see why her nervous system started playing tricks on her. I must draw out the story

of a baffling situation in home or office, or litigation over some accidental injury, or the desire to hold a husband or child who is threatening to break away. If I do not in this way strike at the root of the trouble and help the patient to see what upset her and how she must act to avoid a recurrence of the neurosis, I cannot hope to work a real cure.

THE TROUBLES OF THE HYPOCHONDRIAC

The hypochondriac has a fixed idea of ill health which T. A. Ross believed cannot be cured. Sometimes when the patient has worried about a disease in some one organ for several years, he will suddenly shift his interest to disease in another organ. Because such a person is incurable Ross felt that he should be taken care of and humored by physicians if only so that he can be kept away from the quacks who will fleece him. In other ways these people are usually intelligent and sensible. I know some who have succeeded eminently in business.

THE TROUBLES OF THOSE WHO BELIEVE THAT HEALTH IS A PRECARIOUS THING

Most robust persons take health for granted and never think of going to a doctor, but many worrisome persons seem to feel that health is at all times a precarious thing and one that is likely to slip away unless they are constantly on the watch to retain it and protect it. Every scratch must be touched up with iodine, and every little symptom must be looked into exhaustively and treated with much medicine the minute it appears. Some go farther than this and feel that even when they have no symptoms they should be guarding against illness by taking iron, vitamins, tonics, and anticold vaccines.

Usually there is little one can do to cure these persons because they feel so uneasy when they are not taking a number of medicines. Some of them have insane ancestry.

Chapter XVI

TYPES OF NEUROTIC PERSONS

"Lermontov had, except for a few intimate friends, an impossible temperament; he was proud, over-bearing, exasperated and exasperating, filled with a savage amour-propre, and he took a childish delight in annoying; he cultivated 'le plaisir aristocratique de déplaire.' . . . He could not bear not to make himself felt, and if he felt he was unsuccessful in this by fair means he resorted to unpleasant ones. Yet he was warm-hearted, thirsting for love and kindness and capable of giving himself up to love if he chose. . . . At the bottom of all this lay no doubt a deep-seated disgust with himself and with the world in general, and a complete indifference to life resulting from large aspirations which could not find an outlet and recoiled upon himself.—This is an accurate description of Me."—W. N. P. BARBELLION.

"From as early a time as I can remember, I had no very clear consciousness of anything external to myself; I never realized that others had the right to expect from me any return for the kindness which they might show me. . . . I existed, others also existed: but between us was an impassable gulf. To be let alone and to live my own life . . . that was what I wanted: and I raged because I could never entirely escape from the contact of people who bored me. People . . . left me . . . indifferent. They meant no more to me than the chairs on which they sat."—ARTHUR SYMONS, *A Prelude to Life*.

"Below the surface I am a veritable battlefield."—MADAME PASTORELLI.

"The sufferings of the mind are more severe than the pains of the body."—CICERO.

"The very remembrance of my former misfortune proves a new one to me."—CERVANTES.

"If the brain sows not corn it plants thistles."—English proverb.

"You cannot cure a case of hysteria so long as you have any serious doubts about its nature."—THOMAS BUZZARD.

"He who sets out to cure a neuropath and does not help him very much, is sure to make him worse."—T. A. Ross.

THE PERSON WHOSE NERVES ARE PLAYING TRICKS ON HIM

THERE ARE A NUMBER OF PATIENTS WHOSE TRYING SYMPTOMS ARE EVIDENTLY due to little storms of some kind streaming out over the autonomic nerves

to the heart, the blood vessels, the digestive tract, the kidneys, and the several structures in the skin. During such storms the patient will be distressed and alarmed by the coming of one or more symptoms such as dizziness, faintness, trembling, jitteriness, chilliness, flashes of heat, flushing of the skin, sweating, waves of gooseflesh, palpitation, irregular heart action, nervous air hunger, quivering in the abdomen, intestinal cramps, diarrhea, urticaria, bloating, frequent urination, a stopping up of the nasal passages, salivation, or fear of impending disaster. As I say to a patient who suffers in this way, "Your organs are all sound enough but poorly disciplined nerves are playing miserable tricks on them."

More than usually severe are the symptoms of a patient of mine who for ten years has been getting occasional attacks in which she feels as if shocked. Her hands suddenly feel cold and clammy, her legs grow weak, she has several loose bowel movements, and she is so ill that she has to lie down wherever she is. Her arms and legs feel dead, and she feels as if she were slipping away. After vomiting she feels better, and the next day she is all right.

Some of the symptoms of these patients seem to be due to stimuli which spread out from the brain along sympathetic nerves and cause an outpouring of adrenin or sympathin; others seem to be due to stimuli which spread along parasympathetic nerves—the vagi and the sacral autonomies—to produce acetylcholine, while others, again, seem to be due to outpourings of histamine.

The "Thermostats" in the Hypothalamus. In these cases it seems that those centers in the hypothalamus which regulate the action of the autonomic nerves, and in health do it so efficiently that we humans are not conscious of the workings of our inner organs, must be functioning poorly. They are allowing wide swings up and down in the particular function that they control. As Cannon has said, within a small area at the base of the brain are located these highly important centers for homeostasis, by which is meant the maintenance, within certain narrow limits, of the many functions of the body and the compositions of the several body fluids.

In the hypothalamus is the center that maintains body temperature by integrating the actions of the vasoconstrictors, the vasodilators, the sweat glands, the gooseflesh-making muscles, the reflexes which cause shivering and panting, and the mechanisms that regulate water metabolism and urinary secretion. In this same region also are centers for the control of fat deposition, sexual development, menstruation, breathing, the pulse rate, and the cycle of sleeping and waking.

These centers were built up during the phylogenetic development of the animal kingdom, and good control over them is acquired slowly by the individual as he grows from infancy to maturity. The small child behaves much like an animal, snatching what does not belong to him, striking at his playmates, biting, soiling himself, eating disgustingly, and from time to time screaming with rage or fear or annoyance. Only gradually as the higher cerebral centers grow and take over control does the child learn self-restraint, and only later does he acquire calm adult behavior. And after he has grown up and become a gentleman, just let the cerebral cortex lose control again through the numbing effect of ether or alcohol, or because of a loss of temper, and again the man can become a fighting beast. Similarly, let the higher cortical control be removed by several small strokes or by the degeneration that goes with senility or certain types of insanity, and again all that is left of the man may be a disgusting and irascible animal.

Why the "Thermostats" Get Out of Control. It is, I think, suggestive that when a neurophysiologist removes the cerebral cortex of an animal so as to deprive the hypothalamic centers of control, they begin to send out from time to time a storm which causes the animal to go into an attack either of cowering fear or of spitting rage. A similar reaction was seen by Cushing in the case of a girl who had just had a glioma removed from the neighborhood of the hypothalamus. The least touch to this region would cause her to go into a rage.

Stimulation of this region in patients being operated on has caused slowing of the heart, drowsiness, changes in blood pressure and respiratory rate, and feelings of anxiety. In animals, such stimulation produces, in addition to the effects just enumerated, stoppage of the movements of the digestive tract. Interestingly, in man, tumors affecting this region are often associated with ulceration of the stomach and duodenum, and abdominal pain.

The virus of the common type of encephalitis has a tendency to attack these nuclei, and then among the resultant symptoms may be first somnolence, and later insomnia, attacks of anxiety, loss of appetite, big fluctuations in weight, perhaps chilliness, air hunger, sweating, salivation and, in women, amenorrhea.

An Explanation for the Nervous Storms. It seems to me that there is much in all this to suggest an explanation for the disturbing symptoms that we physicians see in many patients. It has long been noted that when fatigue or toxins affect nervous centers, the higher and more sensitive

ones suffer most, and when their function fails, the lower centers get out of control and function poorly. I suspect, therefore, that often when the upper part of the brain becomes tired, it loses control over the hypothalamic centers, and they then act so erratically that homeostasis is not well maintained. Naturally, then, the person becomes alarmed over the new and strange sensations which he feels.

Other common causes for poorly working "thermostats" are the menopause, infections, cerebral arteriosclerosis, and poor nervous heredity. In the chapters on the constitutionally inadequate type of person and the person with a nervous breakdown, I point out that many of the patients who complain most bitterly of startling nervous storms are relatives of the insane. From years of studying them I feel sure that often their nervous imbalance is their small share of the curse which, in a number of their relatives, produced insanity. I wonder sometimes if a certain patient's defect is not in his thalamic centers or in his autonomic nervous system while that of the ancestor who went insane was in the cerebrum.

The Advantages of Using the Concept of Nervous Storms. The advantages of using this concept of nervous storms with their attendant outpouring of disturbing hormones are that, first, it helps the patient to get rid of disturbing fear; he can stand the storms if he knows what they are and how they are produced; second, it bolsters his self-respect, and third, it enables the physician to diagnose a neurosis without getting himself disliked. As I often say to these patients, "You needn't be ashamed, because you can't help feeling jittery when a nervous storm has given you a big 'shot' of epinephrine. If a doctor were to inject the same amount of epinephrine into me, I would be just as upset as you are. I have no more right to blame you for your behavior in a spell than I would have if, after I had forced you to drink a pint of whiskey, you were to get drunk. And if I were to make you drunk you would need have no feelings of shame for your behavior during the time you were under the influence of the alcohol."

This explanation is important because the physician who cannot tell his patients they are nervous without getting them angry cannot help them.

Treatment. The treatment for the "storms," so far as there can be one, is usually the treatment for a nervous breakdown or for nervousness in general, and the reader will find much on this topic in the chapter on treatment.

The prognosis must depend on the extent of the injury to the nervous system and on its reversibility or irreversibility. In many cases everything

depends on the quality of the patient's nervous inheritance. If there is much insanity in the family the outlook is poor.

THE PERSON "CAUGHT IN A TRAP"

There are many women whom we physicians cannot hope to help because they are caught in an economic trap from which only an unexpected legacy or marriage to a kindly and responsible man could possibly extricate them. Because of this I just cannot bear to send them away with the usual placebos and platitudes. I think it kinder to make them face the facts and stop wasting money on medicine.

To show what I mean by this idea of being "caught in a trap": A pretty, sad-eyed Irish girl came complaining of headache, sleeplessness, and indigestion. Extensive examinations in her home city had failed to reveal any organic disease. I soon drew from her the story that the trouble started when, after three years of waiting, her fiancé decided it was useless to hang around any longer. He left because the girl was supporting her mother and her drunken father, and the young man, with his small salary, could not hope to support three besides himself. The girl would not think of deserting her mother, and so she gave up her chance of marrying. Now, how could I hope to help her with drugs or diet so long as she was lying awake night after night, silently weeping, and gazing at prison walls from which she could see no way of escape? I could only tell her how much I admired her devotion to her mother and to what she thought was her duty.

Another woman wept when I tried to dismiss her from the clinic. Between sobs she complained that I was sending her off without medicine or diet or hope. I told her I could give her all these things and send her home happy, but within a week she would know that I had cruelly deceived her, and then she would have a right to be angry at me. I said, "Please be reasonable, and remember what you have told me; first, that you were always frail and sickly and being operated on for pelvic troubles; second, that two years ago your husband died, leaving you penniless and with a child of twelve to take care of; third, that without money or health or relatives to help, and without any training that would fit you for a job, you were so frantic with worry as to where to turn for food and shelter that when the Greek who ran the restaurant at the corner proposed to you, you snapped him up; and fourth, that soon, what with your dyspareunia and his foreign ways, you two were fighting so bitterly every night that you couldn't rest or sleep or digest your food. Now, be reason-

able; how can you expect me to cure all that with a little medicine? I do not care even to try."

The woman wailed that surely there must be something that could cure her, and I said, "Yes," there was, but I couldn't get it for her. When she asked eagerly what it was, I said, "An annuity of \$150 a month." Her answer was, "Sure, that would cure me. Then I could leave the old Greek and stop worrying and fighting and lying awake!"

Another nervous woman came complaining of ulcer pain, insomnia, migrainous headaches, and much loss of weight. Questioning revealed the fact that she was well until she married a handsome but stupid man. Within a week after the wedding she was desperately unhappy and crazy to leave but she had already become pregnant. Now, three years later, she has a child to care for; the husband is making so little that he couldn't possibly give her enough for a separate maintenance, her health is so poor that she couldn't get a job, and she has no parents to go to. As she said, "We haven't enough money so that I can even have a separate bed!" Under the circumstances, what could I hope to do with medicine or diet? She was so horribly bored with the stupid, conceited husband that I didn't even suggest that she try to make the best of the situation.

I believe we physicians would be more dignified and we would keep medicine on a higher plane if more often we were to tell such patients how hopeless it is to try to help them. We do not mind working for nothing if we can help the patient; we are used to that; but I think we should avoid wasting time on treatments that we know will be futile. It is bad enough to waste time when we will be paid for it; it is much worse to do it when, as in many of these cases, we will never be either paid or thanked.

THE PERSON WITH GREATLY EXAGGERATED KNEE JERKS

There is an interesting group of persons who have one peculiarity in common and that is a greatly exaggerated knee jerk. Some of them jump all over when the patellar tendon is tapped, and I feel sure that this great reactivity of the nervous system alone can account for most of the symptoms and sufferings complained of. I think any person would be as tired and worn out as these unfortunates are if all day he had to be reacting so violently to weak stimuli that do not bother the normally quiet person. These persons with knee jerks jump when the telephone rings or they shriek and get palpitation when someone comes up quietly behind them. They are likely to suffer with the distressing nervous storms which I have

described elsewhere in this chapter. Even the drinking of a glassful of water may throw the stomach into spasm, and any little strain or stimulus may bring on a migrainous headache.

Often, when I am dealing with a woman with a lot of distressing symptoms for which no organic cause can be found in the abdomen, I find it helpful to show her how exaggerated her reflexes and reactions to stimuli are, because usually then she can see why she must suffer and get all worn out. She can see also that if she can only live more quietly for a few months, cultivating repose and learning to avoid tension, she may be able to quiet her reflexes and thus get rid of many of her symptoms. So long as she is so tense and on edge no physician can help her much.

Some physicians are doubtless thinking of this syndrome when they speak of a "tension state."

THE FUSSBUDGET

One of the common syndromes which I see several times a month might well be called the fussbudget's or the perfectionist's disease. It is the disease that fastens itself onto the woman or man who wants everything just so in house and office. It tends to grow worse as the patient grows older. Persons of this type wear themselves out and get constantly more irritable and more difficult to live with as, through the years, they try to force perfection on spouse, servants, and children.

Often they are charming and delightful persons to meet socially, but they find it hard to keep a servant. Sometimes a woman who has good servants will follow them about telling them what to do, or she will do the work after them so as to have it done her way. I remember one such woman who got herself into a serious state of nervousness and exhaustion by visiting in rotation every one of her five daughters in order to clean house and "put everything to rights."

Often these women shop too long and too carefully, and as a result, come home exhausted or with a sick headache. They are usually excellent back-seat drivers, and some love to tell all their relatives how to lead their lives and what to take when they are ill. Often they are fine, generous people full of good works, but still they are a bit trying to live with. They see to it that grandfather does not shovel any snow off the walks in winter, that grandmother does not do any of the mending or darning or ironing that she would so love to do, that father does not smoke too much, that Junior does not go out without his rubbers, and that daughter eats her spinach. Only occasionally can I get one of them to see the error of her

ways. They remind me of the little girl who prayed, "Oh God, make all bad people good and all good people nice!"

THE WOMAN WHO REVELS IN MEDICAL TREATMENT

There are many somewhat psychopathic or hypochondriac women who, as every experienced physician knows, are constantly taking drugs of many kinds. They take every day several kinds of sedatives, antispasmodics, sporifics, and laxatives, one or more enemas, and a douche. Besides this, they will go often to a physician to have the nose treated, to get the gallbladder drained or the ureters dilated, and to get "shots" of iron, estrogens, vitamins, cold vaccines, and pollen antigen. Some will go also to irregulars for manipulations, electric treatments, and colonic irrigations.

Because these women are almost certain to go on treating themselves strenuously in this way, and because they have such decided views as to how they should be handled and what is good and not good for them, and because I am sure that I am not likely ever to get them well by any treatment that I might devise, I never bother them, but let them do pretty much what they please. Sometimes I am able to talk one of them out of using some medicines which are obviously not doing any good, but usually I think it is a waste of time to try to force my views upon them. About the only person who is likely ever to dominate them is a quack, or a physician who practices like a quack, using some bizarre therapeutic measure, and insisting on his ability to cure anybody who will follow his instructions to the letter.

If such a woman should ever listen to or respect my views in regard to her problem, the biggest thing I could do for her would be to get her to stop hoping to be cured as she hopes she will be, by the discovery of some one marvelous medicine or the alleviation of some one of her discomforts. I would try to get her to see that her basic difficulty is her constitutional inadequacy, her psychopathy, her hypochondriasis, her unhappiness, or her poor adjustment to life. I would try to get her to see the futility of treating strenuously many little abnormalities here and there in her body, and I would try to get her to see that her allergy, her pains, her "colitis," her migraine, her skin rashes, her constipation and her pelvic troubles are all manifestations of her constitutional sickliness, her abnormal sensitivity, and her nervous tension. I would try to get her to see that, if any permanent good is to come, *she must be treated as a person and not as a set of diseases*. I would try to get her to let up to some extent on her self-

medication, and would point out that, judging from the paucity of results obtained, few of her medicines would seem to be worth taking. Her experience has proved that.

THE PERSON WHO HAS FLED INTO ILLNESS

There can be no doubt that in some cases illness is of such value to the patient that he will not easily give it up. It may be saving him from having to face an unpleasant situation or to stand punishment for some misdeed, or to admit incompetence or responsibility for failure in some enterprise. It may save him from having to make a difficult decision, it may enable him to tyrannize over a mother or wife, or it may be his only bulwark against loss of self-respect.

Unfortunately, it is hard to be certain about the facts in these cases. Often I can see how an illness can be an asset to a man, and yet I will wonder if he knows what he is doing to himself, or if he could face the situation honestly if its true nature were to be explained to him. Usually, to begin with, in these cases there is poor nervous heredity, and then there may have been enough disaster, worry, and unhappiness to produce illness. For these reasons I am always reluctant to come right out and accuse a patient of having taken refuge in illness. It would be bad enough to make such a blunt accusation if it were justified and the patient were conscious of what he was doing to himself; it would be a cruel thing to make it if the patient were really disabled and tortured by some organic disease.

Actually, in many cases the situation that faces the patient is sufficiently worrisome and trying to upset anyone, and everyone knows that even a strong person can fall ill during a crisis, simply from emotional fatigue, and not because he had anything to avoid or to gain by the illness. To show what I mean, one day a nationally known executive took to his bed when his only son flunked out of college. The disappointment was so great it seemed to hit the man a staggering blow. Because, fortunately, he was a person of strong character, he got up in a couple of days and went back to his desk. If he had been a weakling and had found, let us say, that his illness was causing his boy to pull himself together and really study, he might perhaps have stayed in bed.

I remember a young South American, a student at one of our universities, who came complaining of indigestion, a vague "misery" in his abdomen, and an inability to work. During the course of several examinations made at a good university hospital nothing had been found to explain his disabilities. I finally drew from the boy the story that a year

before, with much fanfare and newspaper publicity, he had been chosen by his government to go to the United States to be trained as an army engineer. Unfortunately, co-eds, movies, and night clubs had turned out to be so much more interesting than his studies that at the end of the first year he had flunked out. Obviously, it would look far better for him to go back home as an unfortunate invalid than as a wastrel and a failure, but I could not be sure that this fact accounted for the whole syndrome. What I was sure of was that it would be of little use to try to cure him because he needed his illness too much to part with it.

Another young man came in with a similar vague abdominal misery for which no cause could be found. Suspecting a psychic conflict, I drew from him the admission that he was the somewhat lazy son of a keen, hard-driving, tyrannical father who was head of a group of lawyers. Uninterested in torts and contracts, the boy had barely got through college and then had flunked his bar examination. Especially after I saw the father, I decided that there was little chance of parting the boy from an illness which was the only shield between him and the bitter attacks of his disappointed and angry parent. All I could do was to try to get the father to let up on the boy and to allow him to lead his own life in his own way.

In some cases, and especially when the need for the illness has passed, I am able to work a cure simply by showing the patient in a kindly way how worry and strain probably upset him and then kept up his disability. Then I point out that now that the disease has become more of a nuisance than it is worth an effort should be made to stop worrying about the symptoms and to go back to work. It would be more fun to be well.

As I have said, in many cases illness enables a person to avoid making a difficult decision. Thus, on several occasions, I have seen a girl go to pieces and become an invalid when she couldn't make up her mind either to marry or to break her engagement. In one case the girl loved the man too much to give him up, but she so feared that he might have a residual infection from an old gonorrhea that she couldn't bring herself to set the date. Another took refuge in a hysterical paralysis when she didn't quite dare marry a man ten years her junior. She was crazy about him but feared she'd soon lose him because of the difference in age. Another, about to marry, took refuge in illness because she feared a sexual life, and another fled into a hospital after two nights with a husband much older than herself.

The desire to hold her children in subjection seemed to me to be responsible for the otherwise unexplainable abdominal pain of a stout

Jewess who, with a devoted daughter, came 2,000 miles to the clinic. The story I got from the girl was that the mother had been well until a few months before when her two daughters had decided to leave the parental home and set up for themselves in a little apartment. They felt that they had to do this because neither of them could entertain a beau at home. There, the mother, always fearful of losing the financial support she and her ne'er-do-well husband got from the girls, would pounce on any visitor and quiz him so mercilessly about his prospects that he fled, never to return. When the girls decided to strike out alone, the mother promptly fell ill, and used up all their savings on medical examinations. Since mothers are not naturally cruel to their daughters, I doubt if the harassed woman knew what she had done. Worry alone may well have caused her illness.

One reason why I am sure that in most cases the patient does not recognize his or her flight into illness is that these persons so often get themselves operated on needlessly. For instance, a woman who had always been well began to complain of pains in her pelvis, low backache, dyspareunia, and all sorts of pelvic and lower abdominal distresses. She had her cervix cauterized, she was curetted, her uterus was brought forward, she had many "shots" and still she complained bitterly. Finally, she was all set to have a hysterectomy when the husband brought her to me. On noting signs of strained relations between the two, I said to the woman, "What did your husband do to you that destroyed the happiness of your sex life?" Then came pouring from her a torrent of denunciation, the burden of which was that at a convention her husband had gone out with "the boys," had gotten sleepy drunk and had wakened next day in a cheap hotel room. He had a faint memory of having gone there with a woman, but that was all he knew. Fearful that he had been exposed to venereal infection, and unwilling to let his wife run any risk of exposure before physicians could assure him that he was safe, he told her the truth, and she became outraged. When I got her to admit that she should have been more appreciative of the fact that throughout the whole affair her husband's only concern had been for her safety, she calmed down, and that was the end of her pelvic troubles.

Another woman, on several visits to the clinic, told so good a story, first of gallstones, then of kidney stones, and finally of peptic ulcer that she nearly got operated on. Each time she stayed around the place for six weeks before she could be induced to go home. One day she admitted that she had an old husband who bored her nearly to death, and her only

excuse for getting away occasionally for a much needed vacation was to fall ill and go to the clinic. I see a good many women hanging about Rochester who I suspect are working the same game. The thing I cannot understand is why so often they overplay their hand and nearly get themselves operated on. I suspect that often they *think* they are ill or they want to go through the motions of being ill so as to silence their conscience.

The lesson to be learned from all this is that always when a symptom complex suggests hysteria, the physician should try immediately to find out what unpleasant thing the illness is keeping the patient from doing or what useful purpose it is accomplishing. According to Seabrook ("No Hiding Place," 1942) his impulses to escape immediately from what he was doing usually came on him suddenly. In his first flight into illness in boyhood, he felt as if, in a moment, someone from outside had taken charge of him, and had left him looking on, a bit bewildered. I have had a number of psychoneurotic persons comment on this fact; that their attacks of what almost certainly was hysteria came on them in an instant when they were busy and happy. One young rancher who had had several hysterical episodes, suddenly, one day, lost sensation from the waist down. He admitted, that for a month, he had been under the strain of getting a divorce from his wife, but what puzzled him was why he should have gotten the attack in a moment when his mind was fully occupied with the problem of breaking a broncho to saddle. All I could answer was that I had seen many such hysterical upsets which had come in just such a sudden and inexplicable way.

THE PERSON WHO GETS VERY NERVOUS AFTER MEALS

There is a syndrome in which the person becomes nervous and upset after eating. The distresses felt are similar to those complained of by persons with a "dumping stomach" which has been produced by gastro-enterostomy or a gastric resection. To begin with, the patient is usually hypersensitive and nervous and perhaps cursed by exaggerated reflexes. He or she probably has, in addition, an exaggerated gastro-intestinal sensitivity, as shown by such facts as that the taking of food promptly brings a desire to defecate, or the taking of an enema produces cramping, nausea, regurgitation, or belching. In some cases there probably is actual gastric "dumping," with a too rapid outpouring of food from the stomach into the jejunum. The symptoms complained of come right after eating and consist usually of jitteriness, feelings of faintness, flashes of heat, sweating, nausea, or perhaps mental distress. They probably represent only

exaggerations of the mild reflex disturbances seen in many sensitive persons.

The treatment is to eat slowly, perhaps to avoid iced or very hot foods or drinks, and to take as little fluid as possible with meals. Fluids are likely to wash food too rapidly down into the jejunum. Sometimes a sedative like a tablet of bromural will help if taken before a meal. It may help also to eat while reclining.

THE PERSON WHO HAS ABDOMINAL DISTRESS AFTER DEFECATION

Every so often I see a patient, usually a woman, and usually a highly nervous Jewess, who complains that for some time after moving her bowels she suffers from pelvic or abdominal distress, with perhaps sweating and a sense of faintness and exhaustion. Pain may seem to follow the course of the colon and it may radiate into the back. For awhile there may be tenesmus or a feeling as if the bowels would move again. In patients with this syndrome I have never found any sign of disease in rectum, colon, or pelvis, and I am sure the syndrome is due purely to a nervous storm. It represents an exaggeration of the distressing reaction that some persons get when they have diarrhea and pass a large stool. Some will then almost faint on the bathroom floor. In some of the worst cases of postdefecation distress which I have seen, the patient was a jittery relative of the insane.

That the distress after a bowel movement is due to nervousness and not to any disease in the pelvis is indicated by the fact that some persons feel a similar weakness after eating. Rarely, also, a very nervous man or woman will feel distress of this type in the pelvis or all over the body for ten minutes or more after sexual intercourse, or even after urinating. Some of these highly neurotic and hypersensitive women will get abdominal cramps and will feel weak all over just from taking an enema.

In the worst cases, defecation is so dreaded that I have had to teach the patient to live on a low-residue diet and to go without a bowel movement as long as possible. Then, in preparation for the distressing act, I have had the woman take a dose of some sedative.

There is another type of postdefecation distress in which the pain is felt in the rectum or anal ring. This seems to be due usually to the passage of soft and irritant feces through a somewhat fissured and overly sensitive anal ring. Curiously, in some cases of diarrhea the stools contain an irritating substance which burns the anus and rectum, while in other cases the patient may be on the toilet much of a day without getting "burned."

THE PERSON WITH MULTIPLE SPHINCTER SPASMS

Occasionally through the years I have seen a nervous, irritable, tense, and perhaps constitutionally inadequate woman complaining of a syndrome that seemed to be due to a spasm of several of the sphincters of the body. In an extreme case there were perhaps (1) pharyngospasm with an inability to swallow when dining out, or perhaps just a feeling of a lump in the throat; (2) slight spasm at the cardia; (3) slight spasm at the pylorus, causing delay in the emptying of the stomach; (4) spasm at the ileocecal sphincter causing delay in the emptying of the terminal segment of the ileum; (5) spasm of the anal sphincters, favoring the production of constipation; (6) spasm of the muscles about the vulva, causing vaginismus and dyspareunia, and (7) spasm in the urethra causing distress on urination.

This disease might be easily accounted for if, as in some lowly animals, the muscle in the several sphincters tends to be more irritable than that in other parts of the several hollow organs. Thus, in the sea slug, *Ciona*, a light stimulus applied anywhere on the surface of the tubular animal will cause the two openings to close promptly, before any other part can respond with a contraction.

THE SCHOOLTEACHER WHO TRIES EVERY SUMMER TO GET A MASTER'S DEGREE

There is a type of old schoolteacher whose nervous and digestive troubles are due largely to the fact that for years, instead of getting some rest during the long vacation, she has gone to a university and has worked hard, picking up units to apply toward a master's degree. As a result, each September she has gone back to work so tired that it has been a hard struggle for her to keep going until the next June.

One of these women amused me greatly. When told in June not to go to summer school but to go instead to a summer resort and there try to get some recreation and fun, she said she would. Later, she wrote that she had bought herself a playsuit, but had found that she didn't know how to get into the thing, which difficulty, as she said, was doubtless symbolic of her trouble!

THE DOMINATING TYPE OF WOMAN WHO IS UNHAPPY

Occasionally I see a type of strong-willed, unhappy woman who usually is the only daughter of a master of finance. She inherited much of her father's ability, drive, and ambition, and her great misfortune really is

that she wasn't born a boy. Usually she married somewhat late, and then picked a man who was weak and amiable and easily dominated by her. At the time of her marriage she apparently wanted someone whom she could run and order about, and she never left any doubt as to who was to wear the pants in the family. In some cases she was so much the boss that, except perhaps for the purpose of having a child or two, she never allowed the somewhat despised husband to come near her bed.

But years passed, and now when she is in her forties she begins to go the round of physicians' offices with symptoms of an impending nervous breakdown. This appears to be due partly to her original psychopathy, partly perhaps to overwork on the directing boards of hospitals and other public institutions, and partly to unhappiness and self-pity. With the coming of maturity she feels a great need for the type of husband whom she could look up to: a man who had succeeded eminently in life and was widely respected and admired by men: a man who could do things in the world even better than she could, and one who could and would dominate her. If some such man would only come to love her, she feels she would give herself entirely to him and be happy even sexually. In many cases I doubt this because the woman is so hard and mannish and self-centered that I couldn't imagine her ever tender even with a man she loved. I wonder also if she could forget her desire to have her own way long enough to give love, generously. I think it more probable that if the man of her dreams were to come along and marry her she would soon lose him because of selfishness and her desire to have her own way. But, then again, perhaps like the apparently mannish editor in "Lady in the Dark," she would find happiness in being feminine at last and snuggling down into the loving and protecting arms of a man strong enough to make her behave and to take care of her, and make decisions for her.

THE WOMAN WHO IS SPOILED

I remember a beautiful titian-haired young woman who, at twenty-two, was raising Cain with her third husband. As I said to her frankly one day, "I think that handsome, lovable young fellow of yours is getting fed up with your tantrums and unreasonableness, and I wonder how much longer he is going to stick." She admitted that she was wondering the same thing and that her fear of losing him was making her ill. I went on to picture to her what a mess she was making of her life because of her selfishness, her childish behavior, and her lack of self-discipline. I pictured to her what a choleric old harridan she would be at fifty if, before then, she

didn't kill herself off with dissipation, alcohol, tobacco, and unhappiness. For awhile it looked as if I might sell her the idea that it would pay to make an effort to reform and to behave like a sensible adult, but soon she went on her way, and I fear that she was too weak to struggle on and make of herself a useful, happy, healthy woman and decent wife.

Every physician of experience can call to mind a number of women of this type whom he has seen through the years, especially in wealthy but somewhat psychopathic families. It may also occur to him, as he thinks of these unfortunates, how much of the marital infelicity that he has seen during his medical lifetime was due to infantile types of behavior. When put under any strain, either the man or the woman or both failed to behave in an *adult* way. The trouble in the worst of these cases is doubtless an inherited psychopathy.

THE WOMAN WHO HUGS HER GRIEF

There are some women who, after the loss of a husband, child, fiancé, or parent, are never the same again. Watching them, I suspect that if ever they were to catch themselves smiling they would feel guilty or disloyal to the dead one, and then by way of penance they would force themselves to look even sadder. My impression is that they hug their grief and hold onto it as a precious possession.

Certainly such behavior does no good, and it usually does much harm to the woman and to her remaining loved ones. If it was a child who died, the other children are made to feel that the mother loved only the one who was taken, and that upsets them. Often a grieving woman of this type stops paying any attention to the husband. Here again, an innocent person is treated shabbily and made to suffer.

To a widow of this type, who after years of loneliness is still making herself sick by clinging to grief, I say that I strongly suspect that if the loved one could come back to earth for a few minutes, he would spend all of his time begging her to get out of mourning and to start trying to find happiness and health again. He would tell her that her paralyzing grief wasn't doing him any good or giving him any pleasure.

THE WOMAN WITH AN AVENGING CONSCIENCE

Every so often I see a woman who is suffering with a number of strange symptoms which are puzzling to me, until I find that they followed closely on the death of her husband. At first glance this information might seem to be sufficient to explain the situation, but soon I learn,

perhaps from a relative, that there is an even more important etiologic factor, and this is that before the loved one died the patient treated him shabbily, perhaps scolded him needlessly, perhaps selfishly denied him some reasonable request, or even threatened to get a divorce. Now that he is gone she so craves forgiveness of him that her conscience gives her no rest.

One of the worst such cases I remember was that of a young woman who came complaining of what I took to be a neurosis. Hunting for the cause, I learned from a sister that during the crash of 1931, when her father confessed that he had taken her money and lost it all trying to stop a run on his bank, she became so enraged that she gave him a good dressing-down. His answer was to go to his room and blow out his brains. When she found the note saying that he was paying back her money as best he could with his insurance, she went to pieces, and naturally, there wasn't much I could do to help her. I remember another case of this type in which a good prohibitionist raised Cain with her husband for taking a little whiskey to relieve a pain in his heart—until he dropped dead; then she was conscience-smitten.

Chapter XVII

THE STORMY MENOPAUSE

*"Through dreary days, and nights as long,
Her heart intoned its secret song;
Old Hope departs—I feel Despair
Draw her gray fingers through my hair;
I've watched Hope fade away for years—
Watched her through blinding, unshed tears,
And now Despair has come instead
To stay with me till I am dead!"*

—MERCY BALDWIN, *Gray Songs*.

*"I am not sorry for my soul,
But oh, my body that must go
Back to a little drift of dust
Without the joy it longed to know."*

—SARA TEASDALE.

"Ceasing to live does not always mean dying."—Chinese proverb.

"No grief so great as that for a dead heart."—English proverb.

"Loneliness is the ultimate sorrow."—ILKA CHASE, *Past Imperfect*.

"There are no persons so far away as those who are both married and estranged so that they seem out of earshot, or to have no common tongue."—R. L. STEVENSON.

"To her, his critical way of waiting and doing nothing became an oppression. . . . And his silence grew upon her like a heavy weight, until (she) . . . felt the impulse to rise and fling away the book, and shriek aloud."—ARTHUR SYMONS, *An Autumn City*.

"The only true pleasure is the pleasure of creative activity."—TOLSTOY.

MANY OF THE MIDDLE-AGED WOMEN WHO CONSULT A GASTRO-ENTEROLOGIST owe much of their distress to the emotional and physical storms of the menopause. Sometimes the symptoms are due purely to the loss of the ovarian hormone; sometimes they are made worse by the presence of other diseases such as a pre-existing psychoneurosis, hypertension, arthritis, migraine, cholecystitis, pruritus vulvae, or trigonitis, and sometimes

they are made worse by the unfortunate reactions of the husband to the sexual and psychic changes in the patient.

As everyone knows, some women go through the menopause without a symptom of any kind; menstruation just stops. If before the change the woman was in love with her husband, affectionate, and able to respond normally to sexual intercourse, the chances are large that after the change she will continue to be happy and sexually responsive. Actually, in some cases the woman is even more interested and sensitive sexually after than before the menopause. Perhaps this is because when she fears that sex is dying out in her, she makes a greater effort to hold fast to youthfulness than she ever made before, or she may feel more pleasure because she is freed from the fear of becoming pregnant. Many women, however, lose their sexual responsiveness at the menopause; some can no longer stand intercourse, and some are glad if the husband is willing at last to leave them alone.

The woman who is most likely to go through the "change" easily is probably the rather stolid, insensitive one, with a well-balanced nervous system and good pelvic organs which have always enabled her to menstruate easily and normally. The woman who has more reason to fear the change is the one who has always had a tendency to be tense or depressed before her periods, and who has always been hypersensitive, nervous, neurotic, psychopathic, or inclined to get much upset over any illness. Other women who have cause to worry are those with a bad nervous heredity, high blood pressure, or a tendency to dysfunction of the thyroid or other glands of internal secretion.

Although in many cases about all the physician needs to do for the woman with menopausal storms is to give her daily doses of some ovarian hormone or some sedative, in other cases a considerable amount of psychiatric help will have to be added. The problem is simple when the only symptom to be combatted is flushes, and when these are not very disturbing. The situation is more serious when the flushes are so frequent and so disturbing that the poor woman can get little sleep or rest; it is more serious when psychic changes come, and particularly such changes as tend to bring a rift between the woman and her husband.

A mere loss of interest in sexual intercourse will often be borne by the husband without protest or complaint. Perhaps there never was much sexual love between the couple; neither one may have been much interested in intercourse, and at fifty neither of the two minds giving it up. Not so easily, perhaps, will the husband bear the wife's apparent apathy toward

him or the loss of her old affectionate ways. When she is overwhelmed and distressed and tired out by flushes, she is likely to act to some extent like a woman in an attack of migraine—too “flattened” to do much more than exist and bear her discomforts in quiet. At such times, unless she thinks to explain the situation to the husband and to keep explaining it until he understands, he is likely, if he is sensitive and affectionate, to feel a great loss. He will be puzzled as to the cause, and he may end by feeling somewhat resentful. Often the woman too is puzzled over what is happening to her.

If, as often happens around this time of life, the woman, to make things worse, lets herself get fat, unattractive, not too clean, and poorly groomed, and if she keeps complaining every evening about her discomforts until the husband's capacity for sympathy is exhausted, there will not be much happiness or comfort left for him in the home. He may then separate himself from the wife psychically, or he may move out of her room or even out of the house. Naturally, such a break, even when it is kept hidden from the world, adds much to the woman's distresses; she feels terribly lonesome; she joins the “nobody-wants-me club”; she perhaps develops insomnia, which brings more nervousness, and nervousness brings more flushes and depression.

An added trouble at the menopause is often the sense of uselessness which comes to cause mental depression. After perhaps twenty-five years of devoted and loving service to a number of children, a woman will go to pieces nervously the day the last one leaves home. She becomes depressed and inclined to weep. She is dissatisfied with many things, and feels perhaps that she has missed much of what she had hoped to get out of life. Perhaps she always dreamed of a beautiful love, and now with the menopause upon her, it is probably too late to find it anywhere. Often I have been struck by the fact that these women say, “Now with the children gone there is no need for me at home.” I will ask, “But how about your husband; does he not need you?” And she will say, “Oh, he doesn't need me; he's so engrossed in business he'd hardly notice it if I left.”

When one sees that the main trouble of a woman is unhappiness and a lack of any great desire to live on drably, one cannot hope to accomplish much by giving estrogens and phenobarbital.

One of the common tragedies of the menopause is that often when a kind husband tries to help his wife and be considerate by making no further sexual advances to her, he only succeeds in giving her the idea

that he is finding solace elsewhere. She may get this idea even when he is not at all sexual and has always been a model of deportment. She will then snub every woman whom she suspects of being friendly with him, and she may raise Cain with him. As one might expect, the innocent husband, even when he knows that his wife's behavior is pathologic and due to the menopause, is likely to feel outraged and uncertain as to how much of her unreasonableness is due to disease and how much to cussedness. He is angry, first, because he has lost a fine wife, sweetheart, confidante, and adviser, and second, because he feels that at a time in his life when business burdens are almost greater than he can bear, here she is, not only not helping him, but actually nearly driving him out of his mind. It is hard also for him to see how a disease which leaves her looking fat and well can so change her and so turn her against him.

In such cases it may help somewhat to talk to the wife, but I find that often she goes on her jealous or depressed way without much change, even when she sees that she is wrecking her marriage and her life and perhaps her husband's life. Then it may do more good to talk to the husband and to help him to decide what he wants to do. He at least is not going through the menopause; so he can perhaps act sanely. It may help to remind him that anything that can so change a once fine, able, sane, and loving woman must be a powerful influence, and one largely beyond her control. He just must try to look on her and treat her for a while as one who is ill.

Sometimes it will help and encourage the woman to remind her that she is going through a stage that millions of her sisters are going through, and that like them, she will recover after a few months or years.

Often the woman can be reassured by being shown that with the sudden cessation of ovarian function, the little thermostats in the brain are so thrown out of adjustment that for a time they will swing wildly. These swings will cause the sudden feelings of abnormal heat. Gynecologists generally point out to the woman that the more bravely she bears her suffering, the more quickly she is likely to get over her period of tribulation. Those neurotic women who have always complained excessively about every little distress will naturally be the ones most likely to have serious trouble at the "change" and a long period of illness.

My greatest difficulty is often with the depressed woman who has always been more or less psychopathic. In her case estrogenic substances may perhaps stop the flushes, and they may even start her to menstruating again, but they may not greatly change her depressed mental outlook.

I am always afraid for the woman who has relatives who have been insane. Curiously, however, I have seen women who, after having had a few attacks of melancholia, went through the menopause fairly well and sensibly, and without loss of their normal sexual responsiveness.

THINGS A PHYSICIAN CAN DO

About half of the women treated with estrogens or phenobarbital are fairly well relieved of their flushes, and some are relieved of their depression. When it works well, diethylstilbestrol is the most convenient and powerful drug to take. It works perfectly when taken by mouth. I think it well to use the smallest effective dose, which may be anything from 0.2 to 1 mg. a day. In such small doses the drug is not likely to produce nausea, and I doubt if there is any chance of its injuring the patient in any way. I have seen it produce cramps when taken on an empty stomach.

In the April 18, 1942, number of the *Journal of the American Medical Association*, H. G. Bennett and R. W. TeLinde described methods of implanting pellets of crystalline estrone which they feel will give good results in nine out of ten cases. Usually 50 mg. has been implanted at a time in the form of from six to eight pellets. In their experience one implant has given relief for from three to sixty-five weeks.

When a woman's spells of depression or irritability or bad flushes tend to follow the old twenty-eight day cycle, it will help her to keep marking a calendar to show her when to rest up a bit and prepare for a storm. If at that time she usually gets a migrainous headache, she should take gynergen (ergotamine tartrate) for a day or two before, as a prophylactic. She can also take more stilbestrol during the preceding week, or that may be the only time when she needs to take it. If her temper usually gets bad at that time she can remind herself to try hard to keep from flaring out at children and husband.

Chapter XVIII

INSOMNIA

"The patient's bed is his best medicine."—Italian proverb.

"O Sleep! O gentle sleep!

*Nature's soft nurse, How have I frightened thee,
That thou no more wilt weigh mine eyelids down,
And steep my senses in forgetfulness."*

—SHAKESPEARE, Henry IV.

"The beginning of health is sleep."—Irish proverb.

"Night is the mother of thoughts."—Italian proverb.

IT IS IMPORTANT THAT THE GASTRO-ENTEROLOGIST UNDERSTAND THE PROBLEMS OF treating insomnia and that he keep always on the lookout for this fruitful cause of fatigue among his patients because in so many cases the best way of leading a tired and nervous person back to health is by teaching him to sleep again. Unless one can do this it is of little use to talk to him of resting.

The physician who would treat insomnia intelligently must keep in mind that there are different types with different causes, and that the treatment for one type may not work well for another.

TYPES OF INSOMNIA

Some persons are light sleepers and always have been from youth onward. Others lost the ability to sleep well after a period during which they overworked or experienced great sorrow or worry, or after they suffered a severe illness or a nervous breakdown. Women sometimes get into the habit of insomnia during the time when they are raising a number of children with all their illnesses and nightly wakings.

Many persons find it hard to get to sleep when they go to bed, while others go to sleep easily enough, but soon wake and then find it hard to drows off again. Some twitch or jump and wake the moment they fall asleep, and they may do this several times in succession until they lose the desire to sleep. Others wake at some time from two to five in the morning,

perhaps because of the need for urinating, and then have difficulty in getting back to sleep. Others are waking and drowsing and waking again all through the night. Others are more or less unconscious all night but do not get sufficient rest because they keep tossing about, or having nightmares. In them, some part of the brain seems to remain at work. Some persons are waked at daylight and have to get up to pass gas or feces. Some are waked too early by the coming of sunlight into the room.

CAUSES OF INSOMNIA

The commonest causes of insomnia are overwork, worry, mental fatigue, and muscular or nervous tension. Many people get too tired mentally to sleep; the brain gets going so fast that it is difficult or impossible to shut it off. Perhaps the pulse is felt throbbing all over, and the whole body is too much alive. This is particularly true when much mental work has been done in the evening, and especially work such as writing, teaching, or public speaking, which gets a person all wound up.

If a man wants to get to sleep around ten he should begin to "shut off the machinery" about eight so that it can slow down and gradually come to a stop. If he keeps going actively until ten he is likely to stay awake until twelve or later. A good simile is that of an automobile approaching a stop sign. If the driver wants to stop easily at the corner he should turn off the power long before he gets there. Hence it is that it is unwise to go to bed as late as many persons now do. Their behavior invites insomnia. Often a woman will say, "But why should I go to bed early when there is no chance of my going to sleep until after midnight? I might as well stay up as to lie there awake." The answer is that if she would spend a quiet evening and then go to bed early, she would have a good chance of getting to sleep before midnight. Besides, just lying in bed will give her helpful rest.

Many persons who suffer with insomnia start thinking and worrying the minute they turn out the light. They live over unpleasant happenings of the past. They think how they might have avoided annoyances or misfortunes; they worry over disasters which they fear are impending, and they plan for the future. Naturally a person who is thinking such thoughts cannot sleep. His muscles remain so tense that his head is hardly resting on the pillow, and sleep cannot come until he sinks heavily into the mattress. Other persons are so fearful of insomnia that they keep themselves awake.

Poor Sleeping Conditions. Some persons suffer because they live on a

noisy street or in an apartment house where there are noises all about, or the spouse may snore loudly or may be a restless bedfellow. Some who sleep in the same bed with the spouse are afraid to turn over or to toss about, and this keeps them from getting to sleep. Some persons feel too cold in winter or too warm in summer. Some suffer with intestinal gas, rumbling, and abdominal distresses. Some with arthritis of the spine wake feeling sore and full of pain, and have to get up and walk around in order to get relief. Most elderly men and some women have to get up to urinate. Some drink too much water or too much coffee, or at supper they eat too heartily of some heavy food such as pork or cheese. Some are waked by extrasystoles, itchiness, cramps in the muscles of the legs, or hot flushes. Some get to snoring so loudly that they wake themselves up, and others are waked by coughing spells.

If a person who has always slept well suddenly develops insomnia without any worry or overwork to explain it, the physician must think of hyperthyroidism or encephalitis. In older persons the sudden appearance of insomnia is sometimes due to an arteriosclerotic injury to the brain. Psychopathic persons who are slipping into a bad nervous breakdown will sometimes keep themselves from going to sleep because of the fear of bad nightmares or the fear that they or a loved one will die during the night.

TREATMENT

Rest. In many cases there is no real cure for insomnia if the patient cannot cut down on the number of hours of work. It is particularly advisable that he or she cut out night work since such work probably has more to do with producing insomnia than any other form of activity except worry. Anything that makes a person tense and keyed up during the evening must be avoided. I suspect that the blaring radio of today has much to do with producing insomnia. Many persons seem to like it turned up so that it is four times as loud as is necessary. If a nap in his chair after dinner interferes with a man's getting a good night's sleep later, his wife may have to try to keep him from drowsing off.

Settling Worries and Making Decisions. In many cases there can be no relief of insomnia until the patient makes up his or her mind about something such as a divorce or a business deal. All worriers must struggle hard to solve their problems during the day, and not to work on them at night.

Hints for Getting to Sleep. Often when insomnia is bad it is wise to go to bed at least an hour before sleep is desired, and then to read something

light or to play solitaire so that if, as often happens, a drowsy feeling should come, the person can snap out the light, drop down on the pillow and get to sleep in a moment. If the drowsiness were to come while the man was up and he had then to undress, brush his teeth, and open the window, he might get wide awake, and after that an hour or more might pass before drowsiness would come again. Because of this peculiarity of human behavior, many a person with insomnia has trouble when the spouse, after being asked to quiet down, persists in putting about, brushing teeth, or running the toilet, until the spell of drowsiness has passed.

When it comes to getting to sleep, the most critical time is the first few minutes after a man has turned out the light. If during this time he can only keep from thinking about problems and worries and activities, he will be all right and sleep will come. What usually happens is that worries and remembrances of things that should have been attended to start crowding in. Again and again he may try to drive away the disturbing thoughts and to substitute other harmless ones, but each time he forgets, and before he knows it, he is grappling with some problem which gets him tense and wide awake.

Evidently, then, the main problem in many cases of insomnia is to use every bit of will power to keep out of the mind all those thoughts that bring tension: thoughts of action in the future, worries and fears, and remembrances of conflicts or unpleasant experiences. Since usually, the waking mind refuses to be vacant, it is well to try to fill it with thoughts that are not likely to cause tension, such as remembrances of scenery. Thus, if a sleepless man can imagine himself back in his boyhood home looking around at the old familiar scenes, and can keep himself there for a few minutes, he will usually fall asleep.

It may help if the man keeps saying to himself that he came to bed to sleep and not to think. If he is going to think and work he might as well turn on the light, get out his brief-case and really go to work. Actually, sometimes this isn't a bad thing to do, because if a man can get a troublesome problem solved he may then be able to go to sleep. Usually an experienced insomniac can tell within a few minutes after turning out the light whether or not he has any chance of getting to sleep unaided. If he sees that he hasn't, it may be a good idea to sit up and read awhile, or perhaps he had better give up and take a sedative.

For many persons the greatest help in getting to sleep is listening to someone reading an unexciting book. If this serves to keep the man from thinking about the problems of the day, he will soon be asleep.

Muscular Relaxation. Muscular relaxation appears to be highly essential to the coming of sleep, and doubtless one reason why the tired, nervous person who is struggling with decisions and worries cannot get to sleep is because energy from the active brain spreads out into the muscles and makes them tense. Instead of sinking restfully into the bed and the pillow, the man holds himself stiffly. That is why Jacobson's idea of voluntary and studied relaxation of one group of muscles after the other should work well and should help persons to get to sleep. Just trying to sink down into the pillow and the mattress will help.

Some persons are helped to relax and to get over the effects of mental activity by taking a little walk shortly before retiring, while others get help from a warm bath.

Fear of Insomnia. It may help a bad sleeper who greatly fears insomnia to be reminded by his physician that nothing terrible need happen if sleep is not secured every night. There are thousands of persons working hard and enjoying fair health who haven't had a good night's sleep for years. They do not go insane or come to any bad end.

For many persons, lying quietly in the dark seems to be almost as restful as sleep. Furthermore, a man may think he is wide awake when really he is only half awake. He will realize this if perhaps he has to answer the telephone or has to rise to go and comfort a sick child. Then he will discover that he has to pull himself together and to some extent wake up before he can do anything. Evidently his brain was working at some low level of efficiency, and he was getting rest even if he could hear the clock chime every hour.

He who greatly fears insomnia should remember also that persons who are drowsing off and on have no idea how much sleep they get. Often the man who has slept in his chair for a couple of hours will be incredulous or even outraged when told that he has had a fine nap. He will maintain that he only drowsed for an occasional moment. Oftentimes the only way in which a man can tell that he slept at all is that he can remember a dream.

Another fact that should suggest to a person who feels sure that he was awake for hours that he was really only half awake or drowsing off and on is that if he had had to sit up in a lighted room with nothing to do for hours he would have been horribly bored, and the time would have dragged terribly. The fact that during a bad night several hours passed fairly easily and rapidly indicates that his brain was not working at normal speed or that he slept much of the time.

A Vacation. In some cases a little vacation, with its freedom from strain and care, is all that is needed to start a person to sleeping again.

Getting Better Sleeping Conditions. A man who suffers often with insomnia should have a bed to himself so that he can roll over or stretch or scratch without disturbing his wife. If the insomnia is bad, and especially if the spouse snores, tosses about, coughs, or gets up at intervals, the patient should, for a time, have a room to himself. Sometimes then if he will sit up and read for twenty minutes or so he will get drowsy and will get to sleep again.

Often the physician must ask about snoring and must be a mediator between husband and wife because neither one will mention the subject to the other for fear of hurting feelings. If a street is noisy it may help if the patient can sleep in a back room, or the windows may have to be kept closed. Some day some inventor should design a good plug to go into the ears at night. People who sleep on porches in the summer and are waked at dawn can be greatly helped by wearing one of those eye shades that can be bought in drug stores.

A Light Supper. Persons with indigestion will sometimes sleep better if they will take only a light supper and will avoid any food that is heavy for them or to which they are allergically sensitive. Those who suffer with gas should try going without supper for a few nights to see if this makes any difference, and if it does, then they should try to find which food causes the disturbance. Persons whose flatulence is due to constipation may sleep better if they take an enema of physiologic saline solution before going to bed, and thus clean out the colon.

Taking Food or Drink. Some persons find it easier to go to sleep if they take a warm drink of some kind before retiring. There is no particular virtue in patented egg powders. Those who are kept awake by drinking too much coffee might try a decaffeinated coffee. Some persons find it helpful to take a bottle of beer or a glass of port or sherry, or a highball. Alcohol is often an excellent sedative and sleep-maker, especially for older persons.

Older persons who have to get up at night to urinate will do well to cut down on the amount of liquid taken in the late afternoon and evening. The man who usually has to urinate at night should have a urinal by the side of his bed so that he will not have to get up and get wide awake. If he is having much trouble he should have the prostate gland examined.

Persons who suffer with a stuffy nose at night should find out if there is anything in the bed or bedroom like feathers or wool or dust to which

they are allergic. A benzedrine inhaler will help greatly to open the nasal passages when they close.

Drugs. Some physicians are much opposed to the use of drugs in the treatment of insomnia, and they fear that habituation will result, but since, in thirty-seven years of practice, I have rarely seen anything that looked to me like true habituation to such drugs, I cannot get excited about the dangers of using them occasionally or even steadily for a time. It is true that I have seen a few people who were taking more than three tablets of some drug every night, but they were half crazy, undisciplined persons to begin with, and they felt desperately in need of sleep. When I asked them to stop using the drug I could hardly blame them for asking me to give them a substitute, because they couldn't sleep. They were back just to where they were before they started using the sleep-maker. Actually, I have had much more trouble getting patients to use barbiturates or similar drugs when they needed them than I have had in getting them to stop using them when I feared they might be beginning to take too much.

I feel sure that in many cases and at certain times the poor sleeper had better be given help because otherwise he will lie awake all night and the next evening he will be even less likely to get to sleep. Often there are emergencies, as when a soldier's wife is waiting to hear if her husband was killed or captured. At such times it would be silly and cruel to say, "Stop worrying, relax, and you will sleep." Or let us say that a highly nervous and temperamental musician has just given a concert. He is all "lit up" and he knows from experience that without help from drugs he must lie awake for hours. But if he doesn't get sleep he will be in no shape for his next concert in another city, and therefore I feel he should have something to help him calm down. Later, when his tour is over, he may neither need nor want a soporific.

I feel, therefore, that if, after a few minutes in bed, a man sees that his brain is so active that sleep will not come for hours, and if the stress of work the next day makes it essential that he get rest, a tablet or capsule of some kind should immediately be taken. Because barbiturates do not give any of that sense of euphoria that morphine sometimes does, nobody in his senses will want to go on taking them after he has learned to sleep without their help.

The wise physician with some knowledge of the pharmacology of sedatives will pick a drug to suit the particular needs of the patient before him. He will not wish to use a drug any stronger than is necessary, or one whose action will last for a longer time than it is needed. For instance, if

he is dealing with a sensitive woman who responds strongly to small doses of almost any kind of drug, he may try giving a tablet of carbromal (adalin) which has a mild action, and he may learn the next day that she had a good night. If he had given her a big dose of barbital or phenobarbital, she probably would have reported that she had a headache or a "hangover" for half of the following day. But let a psychopathic woman come in who is well over the edge into a nervous breakdown, and the physician will probably have to give her at least 15 grains of barbital at a time in order to get any effect.

If all a person needs is a little help in getting to sleep at bedtime, then a mild, short-acting drug can be used: one whose effects will be over in three or four hours. In such cases I often use bromural. However, if the patient is restless and wakeful all night but needs only a little extra help so that he will sleep more soundly and restfully or will get back to sleep more quickly when he wakes, then a mild drug like carbromal (adalin) may be ideal. It must have an action which lasts for seven or eight hours. If the patient is getting to sleep easily enough but is waking at three or four in the morning, then if he is to take anything at that time it must be a short-acting drug. If one were to give him a good-sized dose of phenobarbital, which is about as long-acting as is any of the barbiturates, he would be drowsy until the next afternoon.

If insomnia is due to pain or discomfort, as in the case of patients with arthritis or headache, a dose of one of the pain-relieving drugs such as aspirin, acetanilid or phenacetin should be given with the barbiturate because the sleep-makers are of little use when it comes to relieving pain. If the physician wishes to use a combination of drugs, he may prescribe cibalgine, which is a mixture of diaz and aminopyrine, or allonal, which is a mixture of allyl-isopropyl-barbituric acid and acetophenetidin. In such cases a bromide salt might be tried because it tends to relieve discomfort as well as to help insomnia. The objection to the frequent use of bromides is, of course, that in many persons they produce bromism. The drug tends to accumulate in the system, and then the patient becomes dull and perhaps a bit queer.

Psychopathic persons or persons who have been brought to the edge of a nervous breakdown often fail to react well to any barbiturate. For them large doses have little sedative effect, and worse yet, the drug is likely to make them even more excited than they were, or it will produce such weird sensations that the victim will prefer to lie awake rather than to drop off to sleep. His body may feel dead while his brain is still awake, or

he will seem to be half awake and half asleep, or he may have terrifying nightmares. In such cases one must usually fall back on two old drugs, chloral and paraldehyde. I usually give chloral in the form of somnos (elixir chloral glycerolate), the dose of which is 2 or 3 tablespoonfuls. Chloral probably works well in these cases because it tends to put the patient to sleep so quickly that he hasn't time to pass through a trying stage of excitement. Paraldehyde is used in doses of 3 to 8 c.c. It has such a bad taste that patients object to it. It can be given by rectum in doses of from 10 to 20 c.c. mixed with 40 c.c. of olive oil. There is some danger of habituation to chloral and paraldehyde. In some cases seconal will put the patient to sleep so quickly that he hasn't time for an excited stage, and, actually, some psychopathic persons tell me that seconal works best for them of all the drugs they have tried.

When the patient's funds are limited, the physician may want to prescribe common chemicals such as barbital or phenobarbital, rather than a proprietary drug which may cost more. Some patients, and particularly the nervous ones, will react better to one barbiturate than to another. Sometimes the physician will have to try several before he finds one that is acceptable. In an individual, some barbiturates will produce a hangover and a headache while others will not.

Chapter XIX

CONSTIPATION

... "Nor delay
The urgent calls of nature to obey."—Health maxims of Salerno.

SOMETIMES IT IS ADVISABLE TO FIND OUT AT THE START WHAT A PATIENT MEANS by constipation. Occasionally when a woman says she is constipated she really is having three or four bowel movements every morning due to a laxative taken the night before. How then can she tell if she is constipated? If she would only leave herself alone for a few days to see what the bowel would do by itself she might find that it would work normally.

Another woman who complains of constipation admits that she has a good bowel movement each morning, but she once came under the spell of an enthusiast who convinced her that no one is healthy unless he has three bowel movements a day! Still another woman, much distressed by constipation, admits that she has several movements a day, but these consist of a few small hard pellets of fecal matter, and taking them all together she doubts if they add up to make one normal movement. In support of this suspicion is the fact that her rectum never feels properly emptied, and she suffers with indigestion which she can avoid by taking a daily enema. Still another avowedly constipated woman, who admits that she has one or two apparently normal bowel movements a day, says that her trouble is that she does not secure from them that feeling of health and good digestion that she enjoys when she takes an enema, or particularly when she takes a laxative and gets a thorough cleaning out.

Occasionally one sees a person who has only one bowel movement a week but who does not complain of constipation and has a good digestion. I know a perfectly healthy man who has a bowel movement once in ten days. I do not think of him as being constipated because his type of bowel action seems to be normal for him and it causes him no distress or ill health.

Whether or not a delayed emptying of the bowel produces symptoms depends probably on the patient's sensitiveness or perhaps on the sensitive-

ness of the rectum or of the whole digestive tract. As I have just said, many persons can stand the presence of large amounts of feces in the rectum without discomfort and without getting indigestion or flatulence, while others are distressed by the presence even of two or three small lumps, and they cannot think or work until they get them out. Evidently, then, *the term constipation should mean a delay in defecation which brings discomfort or worry or indigestion.*

Physicians and nurses should always be careful not to regard as constipation that type of failure to empty the bowel that comes inevitably when a person is not eating much, if anything. It should be obvious to any thinking person that a man who has had no food for days because of an abdominal operation or a severe illness should not be expected to have regular bowel movements; he hasn't anything in his bowel from which to form a stool, and hence there is no logic in giving him laxatives. Yet in every hospital of the land one can see this being done on the fourth day after an operation. Not much of a daily bowel movement can be expected also when a patient is on a concentrated and almost residue-free diet.

Much of the constipation that is complained of by thin women is probably due to the fact that "they do not eat enough to keep a canary alive." Some constipated persons seem also to have what might be termed a highly economical bowel, which leaves little residue after it is done with the digestion of a meal. On the other hand there are a few children and adults who, every few days, have to pass fecal masses which are 2 or 3 inches in diameter. I suspect that in these persons the lower end of the colon is abnormally large or has some peculiarity in function. Perhaps the person barely missed having Hirschsprung's disease.

It is possible that in some cases of constipation the dehydrating powers of the colon are too strong, so that the fecal matter is too thoroughly dried out. This occurs in the type of patient whose feces are ovulated.

It is helpful to remember that the colon is a sluggish organ which tends to lie quiet for hours at a time. Only occasionally does a so-called mass movement appear: a wave which forces material from the middle of the transverse colon over into the sigmoid segment or rectum. With the arrival of this material in the rectum the person is likely to feel a desire to empty the bowel. If this desire is restrained, some or all of the fecal matter may be moved back up into the left side of the colon.

The mass movements are most likely to occur following the first meal of the day, when, after the night's rest, the bowel is most sensitive and most ready to move. The taking of food always tends to cause waves to

start moving caudad in several parts of the bowel. As I have watched this process in animals I have been reminded of a baseball diamond where, when the bases are full and the batter strikes, everyone is forced onward. One can understand better, then, why when a man eats but little food or when he has a blockage at the outlet of the stomach due to an ulcer or cancer, fewer ripples will go down his bowel to start waves in the colon, and constipation will result. Sometimes one of the first signs of carcinoma of the pylorus is constipation. As one might expect from all this, a stout person with a big intake of food is seldom constipated, because he eats so much and dines so heartily that many strong waves are started down his bowel. In addition much residue is left from the large amount of food eaten, and hence large fecal masses accumulate in the colon to stimulate it and cause it to contract and empty itself.

The patient who is inclined to fear intestinal autointoxication can be cheered by being told what is the truth, and that is that the stasis in constipation takes place only in the large bowel, where the powers of absorption are small. Practically all the absorption of food residues takes place in the small bowel, where there never is any constipation. Another fact that can cheer the person who worries about possible poisoning from constipation is that material that has once gone past the ileocecal sphincter probably never goes back. Years ago four physicians made the experiment of voluntarily keeping their bowels from moving for four days. Having added some barium to the food, they could watch each day with the roentgenoscope, and at no time did they see any return of material from the distended colon into the small bowel. As is well known, a barium enema will usually flow back into the ileum, but in that case the situation is different; the colon is then abnormally distended with *liquid* material and this is put under such pressure that the gradient of forces in the lower end of the bowel is reversed.

As I have said elsewhere in this book, the anatomic peculiarities of the colon which are so commonly seen in roentgenograms rarely have anything to do with producing constipation. Occasionally the stagnation of feces may be due to the fact that the colon is overly large and roomy so that it takes a long time to fill up. Practically all persons with constipation show a marked tonicity of the colonic muscle, with perhaps some exaggeration of the normal haustration. So far as I can remember, I have never seen an atonic-looking colon in a constipated person, and hence I think the old division of constipation into spastic and atonic varieties should never have been started and never kept up.

Incidentally, it should be remembered that there can be all the difference in the world between the appearance of a colon that has been filled from above by a barium meal and one that has been distended from below by a barium enema. Sometimes a colon that is distended by a barium enema will seem atonic, but when looked at after a barium meal, it will appear decidedly spastic. As I was writing this chapter I saw a constipated woman who, shortly before, had been told by an eminent internist that she had chronic ulcerative colitis. He based this diagnosis on the fact that; with a barium enema, the outline of her descending colon was smooth. If the doctor had only glanced at the films she had with her, made a month before after a barium meal, he would have seen an exaggerated hastration, and would have had to diagnose spastic constipation!

The most important thing to remember is that all kinds of spastic, kinked, and ptotic colons are to be found in healthy persons who never once suffered with constipation. If this fact were better known to the members of the medical profession, our patients would not so often be frightened and given an anxiety neurosis by being shown their films and told wherein their bowel differs from that pictured in some long outdated textbook of anatomy.

All students of the subject agree that the colon is an organ which varies greatly in length, caliber, and position in the abdomen. It is a tube in which the material is forced onward by muscular action and not by gravity; hence its position in the abdomen should never interest anyone. Why should one expect it to work any better in the upper than in the lower abdomen? How, also, can one speak, as many writers have done, of feces weighing the colon down when this material floats in water? With the contained air, it is often lighter than the bowel. Actually, the gut with its contents floats in the abdomen, and is not held up by ligaments. The ordinary kinks do not interfere with the progress of the fecal column because the bowel is forced into an arc as the material approaches. I doubt very much if constipation is due often to *weakness* of the intestinal muscle. I think it far more likely that it is due to a failure of a co-ordinated traveling contraction to move down over the colon.

TWO MAIN TYPES OF CONSTIPATION

There are two main types of constipation, one, the long-lasting chronic one, and the other a fairly recent one which usually comes out of a clear sky to afflict a man or woman who has always had good bowel movements before. Unless there has been a marked change in the amount and type of

food eaten, the stasis is likely to be due to the coming of an obstruction somewhere along the course of the digestive tube. The first mentioned, life-long type of constipation need occasion little concern, while the coming of the second type requires that the physician insist on an immediate study of the bowel with finger, sigmoidoscope, barium enema, and perhaps, barium meal.

METHODS OF EXAMINING THE PATIENT

In all cases the rectum should be examined first to see if there are any causes for obstruction there, or if there is much inflammation around the anal ring. In women who have borne children the rectovaginal septum should be examined to see if it has lost its muscular layer. All the physician has to do to test this is to insert a finger in the rectum and see how easy or difficult it is to bring the tip forward out of the vagina. If there is no strength to the septum, when the woman tries to defecate, the fecal material will roll forward into the vagina and will try to go out that way. Often if the patient is asked about this, she will say, "Yes, that is the trouble with me. I have difficulty in getting the feces to go out through the anus."

Every patient, especially with a recently developed constipation, should have, first, a rectal examination, and then, if nothing is felt or seen, a barium enema. Always, when the history suggests intestinal obstruction, one should study the colon first from below, because if there should be a napkin ring cancer in the sigmoid segment, the barium of a barium meal will fill the colon with hard, sausage-like masses which, at operation, will have to be dug out by the surgeon before he can do anything else. Naturally, this will add terribly to the risk of peritoneal soiling.

It is helpful sometimes when studying a patient with constipation to find that with a barium meal the stagnation takes place almost entirely in the rectum. It will then be obvious that the situation can be treated best with a little enema or a suppository.

In stout women past middle age it is well to test the function of the gall-bladder with the Graham-Cole dye because cholecystitis is sometimes a cause of constipation. Rarely, constipation in a middle-aged woman will be due to myxedema.

CAUSES OF CONSTIPATION

Constipation is, to a large extent, a disease of civilization. As Stefansson has said, the primitive Eskimo had no word for it in his language be-

cause the condition was unknown to him before he began to use the white man's food and to live in the white man's way.

Eating Too Little. In civilized life many people eat so little that they can't very well have large bowel movements. The savage who has been out hunting all day has a big appetite, and when he kills an animal he wolfs down an enormous quantity of food, which acts on the bowel like a huge dose of agar. The sedentary life, then, can produce constipation, first, by taking away that mechanical stimulation of the bowel which comes when the muscles of the abdominal wall are frequently contracted, and second, by cutting down on the appetite and the amount of food eaten, and therefore on the amount of residue left to distend and stimulate the colon.

Postponing Defecation. Constipation is brought on also by the habit of civilized persons of postponing defecation when the call comes. When a savage feels the need for emptying his bowel, he immediately steps behind his hut or a few feet off the trail and there relieves himself. His neighbors may be standing about, but this doesn't matter because to him all functions of the body are natural, and he feels no shame about them. Civilized man often has to postpone the call when it comes because he is rushing for his morning train to the city, or he is busy waiting on a customer. Eventually his rectum becomes so trained to disregard the presence of feces that he must resort to the use of laxatives and enemas. When a man or woman puts off the call in the morning, the feces are likely to become dry and to get rolled up into many pellets which are harder to extrude than is one sausage-like mass.

Nervous Strain and Worry. Much of constipation is due to nervous strain and worry, with the resultant tensing of the muscles all over the body. This tension of the muscles around the rectum probably makes it hard for the feces to come down and to start the chain of reflexes which we call defecation. There are many persons who, after having good bowel movements on a vacation or even on a Sunday, become constipated again as soon as they go back to the tenseness of work. Occasionally one will see a nervous woman who has what looks like intestinal obstruction brought on by some big psychic strain.

Heredity. Many women seem to have a hereditary tendency to constipation. Sometimes a child is born with a colon that is too long or too roomy. Sometimes the children of neurotic parents will develop constipation early in life.

Taking Too Little Roughage. In some cases the development of con-

stipation is favored by the patient's habit of living mainly on concentrated foods, such as meat, eggs, white flour, and sugar, which contain little roughage. Under such circumstances the colon will fill up slowly and will then be slow to overflow.

Taking Too Little Water. In some cases constipation may be due to the drinking of too little water.

The Abuse of Laxatives. In many cases it seems probable that constipation becomes habitual because of the daily use of laxatives or purgatives. In such cases the bowel would resume its normal functions if it were given a chance to try.

The Influence of Age. Old people who eat little and sit around all day are inclined to get constipated. In them the colonic muscle is somewhat weakened by atrophy of the fibers. It is hard to know if diverticulosis, which is so commonly seen in older people, has anything to do with constipation. I doubt if it has. Certainly I have seen extreme grades of diverticulosis in old people whose bowels still moved normally.

Adhesions. It is doubtful if adhesions have anything to do with constipation. When adhesions are formed after an operation they generally soon pull out or loosen up enough so that the bowel can function.

Debilitating Diseases. As is well known, any weakening disease, and especially one that causes the patient to spend much time in bed, is likely to produce constipation.

Food-Sensitiveness or Allergy. In an occasional case constipation is due to spasm in the bowel brought on by eating one or more foods to which the patient is sensitive. In such cases I have seen spectacular relief after the removal from the diet of one or more offending foods.

SYMPTOMS AND COMPLICATIONS

In an insensitive type of person, constipation lasting over several days may produce no symptoms. In more sensitive persons there will be indigestion with abdominal discomfort. The presence of the plug in the lower end of the bowel causes back-pressure in orad segments of the digestive tract, and with this back-pressure may come flatulence, nausea, loss of appetite, a sort of hunger pain, and headache. Symptoms produced in this way will be relieved the minute the rectum is emptied and waves can again run down the bowel.

Whenever I am puzzled as to the nature of an indigestion, I try to remember to ask the patient to stop all forms of medication being used to relieve constipation, and to take only enemas of physiologic saline

solution because until this is done, I will not be able to tell how the digestive tract would work if it were to be left alone. Shortly before I wrote this, I saw a woman who, off and on for several years, had been suffering from vomiting spells and much flatulence. All roentgenologic and other examinations and an abdominal exploration had failed to show anything wrong. I found that because of her obsession that her bowel must be kept clean, she was in the habit of taking each day two types of laxatives, plus a large dose of some gummy bulk producer, plus an occasional dose of castor oil! As I told her, if I were to put all those irritants into my bowel every day, I too would be a sick man. Her physician later reported that since she has been relying on enemas alone, she has been well.

A Feeling of Intoxication. In certain persons with a sensitive nervous system, distention of the rectum or lower end of the colon can produce nervous irritability, headache, and a feeling of intoxication. Mental activity is slowed and made difficult. As I show later in this chapter, this feeling usually disappears the minute the rectum is emptied, which shows that the mechanism producing the symptoms is a mechanical and a nervous one and not a chemical one.

Migraine. Attacks of migraine can be brought on by constipation, and there are a few cases in which keeping the colon clean almost cures the disease.

Diarrhea. In some constipated persons the stagnating feces eventually rot and become fluid. With this, there is so much irritation of the colon that the muscle contracts powerfully and the patient suffers for a few days with diarrhea. Then constipation returns. In occasional cases when a woman can let her bowels go for a week without a movement, shallow stercoral ulcers probably form in the cecum to produce pain and perhaps diarrhea.

Anal Distress Due to the Passage of Hard Fecal Masses. The passage of large, hard fecal masses with an irregular surface will in many persons produce fissures in the anus, or will bring on attacks of inflamed or thrombosed hemorrhoids.

Mucous Colics. In many sensitive persons with an irritable type of colon, constipation can be one of the causes of attacks of mucous colic.

Hypertension and Arthritis. Some persons suspect that hypertension and arthritis are due to constipation, but there is no statistical evidence to back up this hypothesis.

TREATMENT OF CONSTIPATION

The first essential in the treatment of constipation is that it should be adjusted to the needs and idiosyncrasies of the individual. It bothers me to see the growing tendency in the United States to treat all patients in the same way with a bulky diet and water-holding gums. Nowadays all persons are warned and sometimes warned violently against the use of laxatives and enemas. The trouble with this practice is that in many persons with a sensitive bowel, constipation cannot be relieved comfortably with a bulky diet. It may cause too much flatulence or colonic irritation, or if the patient can stand waiting for three or four days until the bowel overflows, the colon will be so full as to cause much discomfort. Often also one of the gummy substances will work well for a week or two and then it will fail to work at all; the colon will get used to it. Hydrocarbon oil also may work well for months and then it may start coming through unmixed with the feces.

In cases in which a bulky diet works poorly I can see no reason why anyone should object to the trial of a mild laxative or an enema. Old people often do best with a laxative taken every night or every other night. Sometimes a person who travels much will find a laxative more convenient to take than anything else. Always the physician must have an open mind and should be ready to adjust the treatment to the patient. If the first treatment he tries fails to work well he must not insist that the patient go on taking it, but must immediately suggest something else. Before he starts prescribing anything he should find out what the patient has tried and has found either helpful or unsatisfactory. It makes a bad impression on a patient to force on him a treatment which he has already found to be useless.

If the patient is using laxatives, he or she should stop for a while to see what the bowel can do by itself. Sometimes to everyone's surprise it will move well. In an occasional case, when I find that a woman is happy with a bowel movement once in five or six days I give her my blessing and tell her to carry on as she is doing. I do not believe it is essential that everyone have a bowel movement a day; some must have one to be comfortable, but certainly not all are made that way.

One of the most important things often is to get out of the patient's mind the idea that all the refuse from one day's eating must leave the bowel within twenty-four hours. This certainly is not true. Freedlander and I found in scores of normal students that most of the residues from

a meal take several days to pass through the body. Any one stool consists of residues from meals eaten during the preceding week. The mixing takes place in the cecum where the material is soft. Beyond the hepatic flexure the material dries and hardens, and then it goes through the rest of the colon much like cars on a track, without any mixing or churning. I have likened the colon to a short railroad siding with three cars on it. Every day a new car comes down and bumps one off on the other end so that three always remain. When a person takes a purgative a car comes down so fast that it bumps all the cars off and leaves the siding empty. Obviously, then, for the next three days the track will be filling up, and during that time no car is likely to be bumped off the end. In other words, when a man has been purged or has suffered an attack of diarrhea he must not expect or demand a bowel movement for two or three days. He must wait patiently until his colon fills and overflows again. This is a very helpful idea in the treatment of constipation and of what is erroneously called constipation. Whenever a person has been cleaned out he must not resort to further purgation for a few days until he is sure that his colon is not going to overflow normally again.

I suspect that it is the *daily* taking of laxatives and perhaps even the *daily* taking of the gummy substances that has much to do with the wearing out of their effects, and for years I have been suggesting to patients that if they must take these substances they should try taking them only two or three times a week.

There is no question that if some of the persons who now think they are constipated would wait for a few days their bowels would move spontaneously. In many cases Christian Science could be the best treatment because with this, the patient would stop the use of medicines, he would stop worrying about getting a bowel movement, and he would wait hopefully until one came. Unfortunately, under the strain and rush of modern life many persons must get constipated, and they cannot let their bowels go for long unemptied because they promptly begin to suffer with indigestion, dopeness, and headache.

Combating the Fear of Auto intoxication. Some persons would leave their bowels alone and get well if they weren't so fearful that they would suffer injury from intestinal auto intoxication. Fortunately, this idea seems to be dying out, and I do not now have to spend as much time combating it as I had to do thirty years ago. I tell patients obsessed with this fear that the wall of the colon is an exceedingly efficient piece of machinery to keep poisonous substances from going through unchanged

into the blood. Most poisons are stopped or chemically altered in the mucous membrane of the colon, while those that get through are wholly or partly destroyed as they filter through the liver and the lung. If any poison should get past these three protective mechanisms it would have to trickle into the circulation so slowly and in such small doses that it could have little if any physiologic effect. As I often say, if a dose of, let us say, barbital were to be dissolved in several liters of water and this solution were to be injected into the veins so slowly that it would all get in in twenty-four hours, the drug would have no effect.

There can be no question that many persons feel miserable when they are constipated, but the important point is that the symptoms almost always clear up *instantly*, the minute the bowels move. *When they do this* the patient ought to be able to see for himself that there cannot have been any chemical poisoning at work because in that case relief would have come slowly, after most of the poison had been destroyed or excreted by the kidneys. Certainly one cannot sober a drunken man in a minute by taking away his flask of whisky!

But the symptoms are real; so if they are not due to chemical poisoning what are they due to? Obviously, they must be produced mechanically by distension of the rectal wall and pressure on sensitive nerve endings. In confirmation of this is the fact that some persons have produced distressing symptoms by distending the rectum with cotton or air. As Ivy pointed out this does not occur in most persons. It probably occurs only in those who are sensitive enough and of the type who can suffer when the rectum is distended with feces. We physicians who are daily making pelvic examinations know that many persons have the rectum packed with feces without being even conscious of the fact, while others are distressed when only a small lump is present.

Constipation Is Often Incurable. The woman who demands to be cured of her constipation so that she will never suffer with it again must be reminded that so long as she lives the strenuous life of modern civilization, so long as she gets tense and nervous, so long as she runs for a commuting train and postpones defecation, and so long as she eats little, she must expect to be constipated. That is part of the price she must pay for living as she does. If she could live out of doors and work with her muscles she probably would be well.

The Re-education of the Rectum. It is probable that some persons could cure themselves of constipation if they would only spend a little more time and effort trying to get a bowel movement. Many fail to go to the

toilet after breakfast because they do not feel a call. If they would go they would get a movement and they would get out of the habit of constipation. Many a working girl needs to get up earlier in the morning so she will not have to rush for the bus the minute she gulps down her coffee.

Influence of Tobacco. Many persons believe a smoke after breakfast is helpful in getting a bowel movement. It is hard to say whether this is due to the nicotine, or to the feeling of relaxation that comes with smoking, or to the willingness of the smoker to spend some time waiting in the toilet.

Exercise. There is no doubt that in some persons exercise tends to counteract constipation, but often it fails to help, as shown by the fact that laborers and athletes sometimes are constipated.

Ways of Helping the Bowel. When the bowel simply will not move by itself something must be done to help it, and then there are two main ways in which the fecal material can be gotten out. It must either be driven out from above with laxatives, salty water, or a rough and bulky diet, or it must be washed out from below with an enema. Since so much of constipation seems to be due to nervous spasm in the muscle around the lower end of the colon it would seem that the best laxative would be one that would block nervous action and permit the rectal muscle to relax. Belladonna extract is added to many laxatives with the hope that it will do just this, and at times it does seem to help. Another ideal drug would be one which would change local spasmodic contractions into traveling waves.

Diet. The usual idea in prescribing a diet for the relief of constipation is to give foods or substances which, because of their indigestibility or their tendency to hold water, will produce bulky stools. As I have already said, many persons with poor digestion cannot comfortably pass so much bulky and indigestible material through their bowel, and, for them, the diet must be fairly smooth and digestible.

A Rough Anticonstipation Diet. Following is a diet list which can be given to those persons who have such a good digestion that they can eat practically anything with impunity. They should include in their usual diet two or three servings of the fruits, vegetables, and salads listed below.

1. *Fruits.* Figs (raw, cooked, or dried), prunes, dates, raisins, currants, apples (raw or cooked), pineapple, plums, apricots, cherries, grapes, melons, grapefruit, berries. Prunes are laxative for some persons but not for others.

2. *Vegetables.* Spinach, celery, tomatoes, cabbage (raw or cooked), cauliflower, sprouts, asparagus, turnips, parsnips, rutabagas, carrots, potato, string beans, squash, pumpkin, boiled onions, cucumbers and artichokes.

3. *Salad greens.* All kinds.

With this diet the patient should always try to get an adequate amount of protein from beef, lamb, veal, pork, chicken, fish, or cheese. It is advisable to take at least a glassful of milk a day and at least one egg to supply necessary minerals and vitamins. The taking of much milk is inadvisable because it tends to produce hard, ovulated stools.

If a trial of this diet should show that it does not supply enough stimulus to the large bowel, then to it can be added one of the several commercial bulk-producers.

A Smoother Diet. Persons who cannot digest a rough diet and much raw food without getting indigestion, gas, and abdominal discomfort should follow a smoother type of diet. This should consist of meats, fish, shellfish, crisp bacon, ham, eggs; milk, cream, coffee, cocoa, soups; vegetables such as potatoes, creamed spinach, string beans, asparagus, beets, turnips, carrots, puréed squash, peas, beans, and corn; white bread, biscuits, toast, crackers; rice, macaroni, noodles, spaghetti; butter; cereals that do not contain bran or other rough material; fruits such as stewed prunes, apple sauce, baked apple, bananas, cantaloupe or honeydew melon, pears, peaches, stewed apricots, orange, or grapefruit, berry or pineapple juice; salads made with tomato aspic, tomatoes, asparagus, cottage cheese, pears, peaches, bananas, avocados, gelatin, shredded lettuce; desserts such as simple puddings made of bread, rice, tapioca, sago, custards, junket, gelatin, blanc mange, ice cream, simple cakes, canned or stewed fruit, the fillings of apple, peach, custard or lemon cream pie, and stewed berry juice thickened with corn starch; cottage and cream cheeses.

Bulk-Producing Substances. Drug store shelves are today full of preparations consisting of one or more gummy substances which, because of their tendency to combine with water and to swell into a partly indigestible jelly, and their tendency during digestion to break down into laxative fatty acids, will often produce a soft bulky stool which is easily extruded from the rectum. One of the first of these gums to be used extensively was agar. Because of the war this is not now available. A similar gum is made from Irish moss. Other commonly used substances are karaya gum and bassorin which come from India. It must be remembered that in an occasional allergic person these gums will produce skin erup-

tions and migrainous headaches. Another gum is obtained from psyllium seed. Bran is used as a laxative but of late it appears to have lost ground to the gums. In rare cases bran will pack in the bowel, and in some persons it causes indigestion and flatulence.

For years much use has been made of hydrocarbon oil which is probably best taken in an emulsified form. It is then more likely to mix with the feces and less likely to come through unchanged so as to soil the patient's clothes. It is a wonder to me how people can digest their food after pouring so much cold, indigestible grease on top of it. A convenient and tasty bulk-producer is Heinz' rice flakes. These flakes contain a laxative material. Prune pulp can be obtained in cans; it is somewhat laxative for some people. Pure cellulose derived from cotton or paper pulp is also sold under trade names. Yeast helps some persons with constipation but fills others with gas. The fig is perhaps the most effective of all the laxative fruits. In some people two or three small canned or dried figs eaten at breakfast will control constipation perfectly. Curiously, if more figs than necessary are taken, the bowel is likely soon to adjust to them so that they no longer have a laxative effect. Some laxative preparations on the market owe their virtues to the presence of lactose.

It is possible that some persons would not so soon become accustomed to the gummy laxatives if they were to take them in smaller doses, or to take them every other day. The person who is depending on the gums or on a laxative must be ready to take an enema the day that the bowels fail to move; that is, if he or she is the sort who must have a movement every day in order to stay comfortable.

An interesting point brought out by Williams and Olmsted (1936) is that the hemicelluloses, which are most efficacious in increasing the bulk of the stool, constitute the most digestible fraction of the gums. The highly indigestible lignins are actually constipating. From these studies it appears that the hemicelluloses are laxative largely because they are split in the bowel into fatty acids. That they do not owe their action purely to the holding of water is shown by the fact that often the increase in the bulk of the stools which comes after the taking of a gum is much greater than anything that could be accounted for by the hygroscopic powers of the amount of material ingested. From this one must conclude that the great increase in the bulk of the stools must be due to some impairment in digestion or absorption. A puzzling feature is that overnight the bowel can so change its functions that a gum which was holding water, increasing the bulk of the feces, and facilitating the emptying of the bowel will no longer do these things.

Drinking Salty Water. Some persons can for a time relieve constipation conveniently and comfortably by taking every day before breakfast from 2 to 4 glasses of water to each of which has been added $1/3$ teaspoonful of table salt. The solution works best if taken at body temperature. It runs through the bowel rapidly, probably because it is so inert. A good variant of this technic is to drink a small glass of sauerkraut juice together with several glasses of water. The only trouble is that the action may be perfect one day and completely lacking the next.

Enemas. Especially when the feces tend to stagnate in the last foot of the colon, the best treatment for constipation would seem to be the washing out of the material with an enema. This measure is the only one which can be counted on not to upset digestion in the small bowel. Actually, many sufferers from constipation have found that the taking of an enema is the best and simplest way out of their difficulty. Especially when a patient has a highly sensitive bowel, the worst trouble with laxatives is that their action is uncertain. A small dose may not work at all, while a slightly larger one will keep the patient running to the toilet at intervals all day. The great advantage of an enema is that with it, the left side of the colon can be emptied within fifteen minutes or so, and then the patient is done for the day.

Unfortunately, many of the patients who know that enemas work best for them are afraid to take one. Usually some physician has scolded them and told them they would develop an "enema habit." This seems a foolish statement because no sane person is going to take enemas just for the fun of it. It is true that he may get into the habit of taking an enema every morning, but if he doesn't do this he will have the constipation habit, which is just as bad as the enema habit or the habit of taking some gummy substance or some laxative pill every day.

Some physicians threaten their patients with disaster if they take enemas, but I can't see the sense of this because in thirty-seven years' experience I have never seen anyone whose colon appeared to have been damaged by repeated washings. Recently I saw a woman who had taken enemas every day for seventeen years, but the roentgenograms of her colon showed nothing unusual. Furthermore, the mucosa, as seen with the sigmoidoscope, was perfectly normal. In another case in which the woman had taken enemas every day for ten years, I was able to study a pile of films which she had made of the colon at yearly intervals. These showed no change in the shape or size of the bowel, and in this case, as in the other, the mucosa of the rectosigmoid segment was normal. I have asked hundreds of physicians if they had ever seen enemas do

harm, but all that an occasional one could tell me about was a scratch on the rectal wall produced by the tip on the end of the tube. I have, therefore, no fear of enemas, and I cannot see why so many physicians now object to them as they do.

Actually, I think the reason why so many of us doctors feel annoyed when our patients take enemas is that occasionally we see some half-crazy woman taking three or four a day, and we hate to think that our patients might become like her. Actually, the only women who are taking several enemas a day were probably either hypersensitive or psychopathic to begin with.

Especially after the patient has once been frightened by being told that enemas will ruin her colon I have to reassure her before I can get her to use this excellent method of relieving constipation. The way I do it is to tell her that tears certainly do not hurt her eyes and therefore it isn't conceivable that they could hurt the mucous membrane of her colon. The equivalent of tears can be obtained by adding a rounded teaspoonful of table salt to a quart of warm water. If only a quart of water is run in at a time there is no possible chance of stretching the colon out of shape or of injuring it in any way.

Often when I suggest to a woman that she use an enema she will reply that she has tried it and it is too hard to get the water in and too hard to get it out. Usually these troubles can be avoided by using physiologic saline solution instead of plain water or soapsuds. Also if the enema is run in as warm as can comfortably be borne the heat will relax the bowel and the fluid will flow in more easily.

When a patient complains of difficulty in getting water out it may be that someone has taught her to hold it a while. This isn't necessary, and it is better to let the water run out at the time when the colon is trying hard to get it out. The patient may have to go back to the toilet once or twice to get rid of the last remnants of the water that was run in.

I can't see any logic in the idea that, while taking an enema, the patient should lie down or roll around or get into the knee-chest position. When the water goes in it has to go somewhere, and the only place it can possibly go is up the large bowel. It is hard to see why it can't do this just as well when the patient is sitting as when he or she is lying down. Some persons say they cannot get good results with enemas, but often I wonder if they are taking them properly. Perhaps they are so fearful of doing themselves harm that they will not use more than a cupful of water at a time.

Some persons still have an idea that when they use a long rectal tube they are taking a "high enema," but actually the tube only coils around in the rectum, and this does no good. Only the amount of water run in will determine whether the enema is high or low. Patients should be told that they need not try to clean out the whole colon every day but only the left half of it. No normal colon empties itself entirely every day. When the enema water returns brown and muddied, the patient can be sure that the colon has been washed out well enough, because soft, un-formed material must be coming from the cecal region.

When inserting the enema tip the patient should remember that the anal canal points somewhat backward as well as downward. Because of this, if scratches on the posterior wall of the rectum are to be avoided the tip must be slanted somewhat forward as well as upward. Some persons with a poor anal sphincter need a tip with a shoulder on it which can be pushed up against the anus to keep the water from flowing out as fast as it flows in.

I cannot see any curative value in the practice of flushing out a patient's colon with a two-way tube. A man can clean out his own colon well enough with a simple enema bag and tip.

Oil Retention Enemas. Some persons can get a good bowel movement in the morning by putting some oil in the rectum the night before. From 4 to 6 ounces of mineral oil or some salad oil can be warmed and injected into the rectum with a bulb syringe. This procedure works well for some persons, but others object to it because the oil tends to leak out during the night.

Glycerin Suppositories. Satisfactory results can sometimes be obtained with glycerin suppositories but if the person has small fissures in the anal ring or a very sensitive rectum he will not be able to stand the glycerin because it will burn and hurt.

Laxatives. Laxatives constitute often the most convenient form of treatment for those many persons who, because of a low degree of intelligence, poverty, an irregular life, or lack of good toilet facilities, will not or cannot diet or take daily enemas. I doubt if laxatives ever do any serious harm to anyone. At worst, probably, they upset digestion and cause flatulence. I have seen many an old man or woman who apparently was none the worse for taking a cascara or aloin pill every night for many years. I would hate to start a child to using laxatives, but I see no objection to their use by old people. I think laxatives might work better if they were to be used only two or three times a week rather than

every day. When a pill has cleaned the colon out there is no logic in taking another that night.

The great trouble with the use of laxatives by some persons is that they act too much one day and too little or not at all the next. A good laxative for some women with a sensitive colon is calcined magnesia which can be taken in doses of 1 or 2 teaspoonfuls in the morning. If its action should prove to be uncertain better results may be obtained with one of the many combinations of phenolphthalein, cascara, aloin and bile that are to be found on the market. Sodium phosphate is a mild saline laxative which can be taken most conveniently in an effervescent form and in a dose of from $\frac{1}{2}$ to 2 teaspoonfuls.

The mildest of the anthracene laxatives is cascara. Another useful drug of this type is aloin. It is said to have the advantage of a constant, even action which can be depended on day in and day out. Perhaps the commonest laxative used today is phenolphthalein. It is cheap and tasteless and its action is fairly mild. The dose for an adult is from 1 to 3 grains. One finds it in many proprietaries such as Cascarets, Veracolate, Caroid and bile, and even Agarol. Dry bile in the form of 5 grain pills is laxative, but its action is uncertain.

Surgery. For a while it was hoped that some nerve-cutting operation could be devised which would relieve constipation, but so far as I know, none of the attempts toward this end have succeeded. One can relieve severe constipation by removing the right half of the colon, but rarely have I seen a patient who I thought was constipated enough to require such treatment, and sane enough to be a good subject for such an operation.

Chapter XX

THE IRRITABLE BOWEL SYNDROME COMMONLY CALLED MUCOUS OR SPASTIC COLITIS

"It soon became evident that appendicitis was on its last legs, and that a new complaint had to be discovered to meet the general demand. The Faculty was up to the mark, a new disease was dumped on the market, a new word was coined, a gold coin indeed, COLITIS!"—AXEL MUNTHE, *The Story of San Michele.*

"Do not be like the spider, man, and spin conversation incessantly out of thine own bowels."—SAMUEL JOHNSON.

ONE OF THE COMMONEST SYNDROMES SEEN BY THE GASTRO-ENTEROLOGIST every week is that of the irritable bowel. Although the functional nature of the condition—I wouldn't call it a disease—is now pretty well known to all physicians, and although methods of treatment have improved considerably in the last twenty years, there still is much need for further improvement in our handling of these patients. The first thing we need to do is to break away from old habits and stop calling the condition colitis. To both us physicians and the layman the genitive ending "itis" has come to mean inflammation, and since every pathologist knows that the irritable colon is neither inflamed nor ulcerated, I think everyone should agree that we should never, in talking about it, use a term which is not only inaccurate but confusing, and likely to produce a worse neurosis than the woman had when she came to consult us. What we are doing is to call a harmless condition by the same name which we use to describe a serious and often fatal disease. Actually, I have seen several cases in which a nervous woman who had been told that she had a *mucous* colitis failed to notice the adjective, and, as a result, was later scared half to death when she heard that a friend with chronic ulcerative colitis had died within a few months after the diagnosis was made.

In thousands of cases a worrisome woman who always thought she had

only an ordinary constipation, on going to a doctor is distressed to learn that she has "colitis," with a badly kinked, ptotic, and spastically contracted large bowel. Naturally, this information only makes her more worried and upset than she was before, and it often starts her to going the rounds of specialists, demanding that her supposedly diseased colon be treated strenuously.

THE NEED FOR DISREGARDING MINOR ROENTGENOLOGIC FINDINGS

Because the finding of little things wrong with a woman's colon and the showing of them to her can only worry her and perhaps rivet a troublesome neurosis more firmly onto her, I feel that one of the best and kindest things we physicians can do in these cases is not to see all sorts of things wrong in the films that come back from the roentgenologist. Where I work, the roentgenologists never comment on spasticity, redundancy, kinks, or ptosis. In these cases that I have been describing they report a normal colon, and they are right, because if the abdomen were to be explored surgically, nothing wrong would be seen. Furthermore, if the woman were to get killed in some accident, and microscopic sections were to be made of the colon, the only change that would be found in the mucosa would be some overactivity of the mucus-forming cells. Actually, during life, one can easily see with the help of the sigmoidoscope that the colonic mucosa is perfectly normal. It is not ulcerated or swollen or reddened.

As I point out elsewhere in this book, it is of no use to comment on the "ptosis" these women commonly have because one can find the colon deep in the pelvis in 75 per cent of healthy college students and athletes who never have had either indigestion, pain, or constipation.

I tell persons who have been frightened by the diagnosis of a ptotic colon, that just as one finds women with short or long legs, a thin or a fat abdomen, high, conical breasts or low, pendulous ones, so one finds perfectly healthy women with a short or a long colon, a narrow or a wide one, or a high or a low one. So far as I can see, there is not much more reason for blaming a woman's troubles on her low-lying colon than on her low-lying breasts. When one remembers that the progress of material along the intestinal tube is due, not to gravity, but to wavelike contractions of the muscular coats, it is hard to see why the location of the tube in the abdomen should make any difference in its function. Incidentally, those physicians who talk of feces weighing down the colon or being affected by gravity would seem never to have turned around

to look in the toilet bowl to discover that this material is so light that it floats in water. Really, since the feces and the gut have about the same specific gravity and since this is little different from that of water, they both float in the abdomen together, much like clothes in a washtub full of water.

An occasional woman, especially around the time of the menopause, will say that she is going to lose her mind because of the distresses which she feels are arising in her colon, but usually my impression is that it isn't disease in the colon that is driving her insane but rather, an involutional depression which is causing her to fuss crazily about her supposed auto intoxication. There is no question that these women are terribly distressed by feelings of toxicity, but I believe their distress is arising in the brain and being projected out into the abdomen. Many a sane and insensitive woman can wait for a week for a bowel movement without feeling any distress. If the colonophobic psychopath's troubles were really due, as she thinks, to toxins coming from her bowel, then she should be wonderfully better when her colon is kept clean with the help of several enemas a day, but in bad cases such washing out does not bring full relief.

As I have already intimated, most students of this disease feel sure that the muscle of an abnormally sensitive bowel is being thrown into spasm, and the mucus-forming cells of the mucosa are being made to secrete excessively by disturbing stimuli which are reaching the gut by way of the nerves. White and Jones showed that changes resembling those of mucous colic can be produced in the mucosa of the sigmoid loop of colon of normal persons by the injection of a parasympatheticomimetic type of drug.

THE TERM MUCOUS COLITIS SHOULD BE DISCARDED

From all this, it would seem highly desirable that we physicians discard the term mucous or spastic colitis, and use instead the term *irritable* or *sensitive bowel*. I prefer to say bowel rather than colon because there are reasons for believing that in some of these cases the small bowel and even the stomach share in the irritability. The painful exacerbations can be spoken of as mucous *colics*.

There is no doubt that the term colitis can be used as a placebo with which to satisfy a nervous patient and get her quickly out of the office, but as I emphasize elsewhere in this book, the trouble with such practice is that it does not work a cure, and, by adding to the patient's fears, it can easily make her worse. The only possible way in which these women

can be helped is by explaining patiently to them what the situation is, by casting out fear, and by *helping them to learn to live with their unruly bowel*. So far as I know, there is no way of "curing" them so that they will never have trouble again.

Sometimes it helps to show these patients the paragraph in Axel Munthe's "Story of San Michele" in which he claims to have originated the diagnosis of "colitis" as a placebo. He used it to delight those fashionable young women in Paris who were bored to tears with an old husband, and who were looking for a diagnosis that would sound interesting and more exciting than just "nerves."

There is no question that a physician can save himself much time by making a diagnosis of colitis, and that he can please a woman much more in this way than by telling her the unpleasant truth; the trouble is that by acting in this way he can do her more harm than good. Fortunately, most of us physicians would rather spend more time and effort on a medical problem if by so doing we can have the pleasure of seeing the patient started back on the road to health, and hence it is that, day after day, most of us keep talking to these women, trying to convince them that they are not so ill as they think they are.

THE MUCUS IS NOT DANGEROUS

Often one of the first and most important things to do for these women is to assure them that the passage of mucus is not harmful, and the body will not feel the loss of it.

THE VICIOUS CIRCLE

Many a woman says to her physician, "If you would only do something to make my colon more comfortable my nerves would get well." And doubtless she is right. But the physician is right too when he answers that if the woman would only stop fretting, fussing, overdoing, and getting tired and upset, or if she would only settle some life problem once and for all, her nerves might quiet down and her colon would then have some chance of getting better. Often it is a vicious circle that has been set up, and the only way in which it can be broken is by inducing the patient to rest and relax and search for peace.

SYMPTOMS

In some patients a sensitive colon does not cause much trouble except at those times when there is great emotional stress or when the patient has eaten some food or drunk some liquor to which he or she is allergi-

cally sensitive, or when a cold is coming. Then there may be pain and soreness throughout the course of the lower bowel, with perhaps the formation of gas, mucus, and a little fluid. There may be a sense of burning or a feeling of pressure in the rectum, and the victim may want to go to the toilet every half-hour to pass a little mucus and gas. Occasionally, under the influence of worry, fear, or excitement, persons of this type will have one or two loose bowel movements.

In severe cases the lower half of the abdomen is sore most of the time and the patient has an almost constant misery which seems to arise in the colon. After any nervous upset there may be much pain, and then the patient may pass long shreds of mucus or a so-called cast of the inside of the bowel. Puzzled and alarmed, he or she may take a mason jar full of this material to a physician to find out what it is.

Some persons with a highly sensitive colon will be so conscious of even a small lump of fecal matter in the rectum that they will have to get it out before they can find peace and comfort or go about their business. Curiously, also, in many cases the presence of a small lump of feces in the rectum will cause the bowel to go on excreting quantities of gas, gas which almost certainly is coming out of the blood. As soon as the rectal plug is removed, this gas will stop forming and peace will descend again on the colon. The influence of nervousness on the process is shown by the fact that usually when the patient wakes in the morning there is only a little gas in the rectum. If it had gone on forming at the rate at which it was forming before the patient fell asleep, he or she would soon have been wakened by bloating. Another fact suggesting a nervous origin of the flatulence in these cases is that a little codeine will often put a stop to the formation of the gas.

Most persons with a sore colon are of a tense, sensitive, nervous, or worrisome temperament. They may be calm externally, but they usually seethe internally, and any strong emotion is likely to affect all those organs which are under the control of the autonomic nerves. Many of these patients are frail and constitutionally inadequate. Some of the women have a painful or otherwise abnormal form of menstruation, perhaps with other signs pointing to the presence of defective pelvic organs. A few are somewhat psychopathic, and many are so fussy that they want the world and their home to run just so. Others are sweet, gentle women, the salt of the earth. Some owe much of their ability in the fields of art, literature, and science to the fact that they are hypersensitive and overly responsive to all sorts of stimuli, both pleasurable and painful.

Some of these persons will get a bad attack of mucous colic just from

having friends in to dinner or from going out with a person of the opposite sex, or from starting on a journey. In the worst cases the woman becomes somewhat of a recluse or fails to get married because she so dreads to go out socially. I have known married women of this type who had a severe mucous colic every time an only child was ill.

ALLERGY

In some cases the patient will get along well until she eats some food to which she has an allergic type of sensitiveness. Some physicians have suspected that all the troubles of persons with a sensitive colon are due to allergy, but my experience has made me feel sure that the allergic type of reaction is only one of the agents that can cause an upset. As one highly allergic woman once said to me, "I now have my colon under perfect control so far as foods are concerned. I know what to eat and what not to, but I still get a mucous colic whenever I get a cold, get constipated, take a laxative, worry, get too stirred up or tired, get excited sexually, or lose my temper, and sometimes I get an attack for no cause that I can yet discern."

THE NEED FOR ONE CAREFUL EXAMINATION

If only to cheer and reassure these people and to remove fears, the physician should, at the start, examine the colon, looking at it with both the roentgenoscope and the sigmoidoscope. He must remember that just because a woman has a sensitive colon she is not immune to carcinoma. The appearance of rectal bleeding, anemia, or signs suggesting intestinal obstruction should cause alarm because these are not the symptoms of a sensitive colon.

THE DIAGNOSIS

It is helpful in diagnosing a sensitive colon to note that the pain is usually *below the navel*, and that the patient is perhaps a hypersensitive and overly emotional woman who is fatigued, nervously upset, or constipated. Occasionally, when pain is felt mainly around the cecum the physician will be tempted to remove the appendix, but this rarely does any good unless the patient has had at least one definite attack of appendicitis, with pain severe enough to prevent sleep.

TREATMENT OF THE SORE COLON

In many cases the first thing that must be done in the way of treatment is to remove fear from the mind of the patient. Fear must be cast

out because it does so much harm. In Chapter IX I discuss the technic of clearing away those fears of ptosis, kinks, spasm, and spasticity which the patient has picked up along the way. A woman must be made to see that she must accept her colon pretty much as it is, and she must face the fact that she is likely to have some distress in it off and on for the rest of her days. The essential point is that she must learn to live with it. She must try to identify those influences which cause it to become sore and painful so that she can avoid them.

She will do well also to decide that she is not going to be one of those many persons who are constantly talking about their bowels and their bowel movements. She does not want to be one of those women who look in the toilet every morning and poke at their excrement with a stick. She should decide that she is not going to let the distress in her bowel ruin her life and perhaps that of her husband and her children. Instead, she is going to live as normally and as happily as possible in spite of her discomforts. She is going to try to get what rest she needs to keep her nerves under control. She is going to hoard her energies, and she is going to avoid unnecessary fretting and fussing. She is going to learn how to get a bowel movement every day or two without upsetting the gut and making it sore. Methods for doing this are discussed in the chapter on constipation. In most cases I think the best method of emptying a sensitive colon is to take an enema consisting of a quart of warm water with a rounded teaspoonful of ordinary table salt.

Persons with an extremely sensitive bowel will sometimes have to take an enema even after the bowels have moved. Apparently some irritant substance is left in the rectum, where it keeps causing distress for some time after defecation. Immediate relief can be obtained by washing this material out.

As I have already pointed out, some patients can help themselves greatly by finding out which foods are harmful to them. Others are comfortable when they live on a smooth type of diet, a description of which will be found elsewhere in this book. Apparently a sensitive bowel can sometimes be irritated and thrown into spasm by the passage of rough, sharp, or hard particles over its mucosa.

Many physicians give belladonna to patients with an irritable bowel, hoping thereby to lessen spasm and to block disturbing nervous influences, and actually in some cases it appears to help. In most cases I think it is of little value, and hence I rarely prescribe it. When given in physiologic doses it can distress the patient by drying the mouth and disturbing vision. It should be given only on those days when the distress is acute.

Other drugs that are commonly used by many physicians are sedatives such as the bromides and phenobarbital. Again, I do not like giving these drugs day in and day out. I doubt if any sensible person wants to be drugged and quieted all the time. It must be remembered also that these drugs have cumulative effects which are sometimes disturbing. The giving of much medicine is bad also because it beclouds the fact that the trouble is a lifelong one that is not going to be cured by any one therapeutic measure. So long, also, as a woman expects all of her cure to come out of a bottle, she will do nothing to help herself.

New antispasmodic drugs are constantly appearing on the market, but I do not know much about them. What little experience I have had with them has not been encouraging. I have tried sodium ricinoleate, or soricin, in many cases, but I haven't seen any definite effects. This drug is made from castor oil, which sometimes seems to have a soothing effect on the bowel and on the nervous system. A new drug with some promise is trasentin. It is used in doses of from 20 to 100 mg.

Many efforts have been made to relieve the patient with a sensitive colon by culturing the stools and then making vaccines from those organisms to which the skin reacted. Good reports have appeared in the literature, but I have never had enough faith in the logic of this type of treatment to give it a good trial. I feel sure that in these cases the disease is not in the colon, and hence I do not see how the giving of vaccines can affect the situation. Actually, it is very hard in these cases to tell if any type of medication has helped because the distress tends to come and go even in the absence of any treatment.

Years ago many physicians were dosing these women with acidophilus bacilli in tablets or in specially fermented milk. I gave the method a fairly extensive trial but never saw any good results that I could be sure of. Incidentally, the bacteriologists at the University of California made extensive studies of the stools in many of my patients who had a sore colon and a tendency to diarrhea, but they never found any great or significant deviation from normal. Hence there was no definitely abnormal flora to correct. Some of the patients I see are much frightened because some physician, after having a stool cultured, reported that streptococci were present. Of course they were, and talking about them to a worrisome patient served only to cause alarm and worry.

Many efforts have been made to cure patients with a sore type of colon by washing it out every day with a special type of apparatus, and this, of course, can give some comfort, especially to patients who suffer with

constipation, but I have never seen anyone who seemed to have been cured by this sort of thing. The big point the patient must always remember is that her bowel is normal, and hence treatment must not be directed toward changing it.

Many young women and some men with a sore colon are handicapped socially because whenever they go out to dinner or to a theater or dance, their excitement causes them to fill with gas. This rumbles and causes embarrassment as well as physical distress, and sometimes it causes them to go frequently to the toilet. Such persons can get much relief by taking a teaspoonful of paregoric or $\frac{1}{2}$ grain of codeine sulfate before leaving home. These drugs apparently quiet the nerves to the bowel. Codeine has such an extremely small tendency to produce habituation that, especially when taken occasionally in this way, I see no reason for being afraid of it.

The more I see of patients with this syndrome, the more I am convinced that in many cases the cure could come only if we physicians could get the woman out of a difficult situation, perhaps out of an unhappy marriage or out of a job that is too hard. But often we cannot get her free from the situation that produces the colonic distress, and then we cannot hope to relieve it. I have described some of these situations under the heading of "the caught-in-a-trap disease." Often because of financial need the woman must go on working at a job which taxes her strength, or because of her responsibilities to her parents, she is unable to marry the man who has long been waiting for her, or later when her marriage goes on the rocks, she may have to stay in the hated bed because there is no money for separate maintenance for herself and the children. That these factors are highly important is shown by the fact that oftentimes when the patient does get an easier job, or quits and goes back home, or gets a good husband, or gets rid of a bad one, the distress in the colon largely disappears.

Chapter XXI

FOOD SENSITIVENESS OR ALLERGY

"Ever since the first skin reactions were demonstrated to food and inhalant allergens over twenty-five years ago, it has been hoped that the various causes of allergy could be determined more conclusively and frequently by scratch or intradermal skin tests with improved and more stable allergens as they became available. Increasingly, however, students of allergy have become convinced that clinical allergy may exist to inhalants and especially to foods in the absence of positive skin tests."—ALBERT H. ROWE, *Elimination Diets and Patients' Allergies*, 1941.

". . . At table he did, they speaking about antipathys, say, that a rose touching his skin anywhere would make it rise and pimple; and, by and by the dessert coming, with roses upon it, the Duchess bid him try, and they did; but they rubbed and rubbed, but nothing would do in the world, by which his lie was found."—SAMUEL PEPYS.

IN ALL PUZZLING CASES OF INDIGESTION, AND ESPECIALLY THOSE IN WHICH much gas is being formed in the bowel, it is well to think of food sensitiveness as a possible cause, and to institute measures to see if this supposition is correct. In my own experience with these cases I have more disappointments than successes, but when I do succeed in giving relief to a man by removing a few harmful allergens from his diet, the relief is so delightful that I feel all the more certain that in the future I must keep a close watch for this type of case.

Unfortunately, there are still some physicians and dietitians who are sure that food allergy is all in the patient's head, and I can see why they feel this way. They do so first, because they themselves happen to be able to eat anything and everything with impunity and hence they cannot understand why anyone should be any different. Second, because they have noticed that most allergic persons are hypersensitive and nervous, they have jumped to the conclusion that all the digestive troubles of allergic persons are due to queer nerves. It is true that most highly allergic persons are nervous, but this is what one would expect because allergic hypersensitivity is often just a part of a generalized hypersen-

sitiveness. The fact that some women lose much of their allergic sensitiveness the day they get an unfortunate love-tangle straightened out does not mean that their trouble was all in their heads; it means only that when they calmed down a sort of trigger got set so firmly that the allergic mechanism could no longer go off so easily. The great influence of fatigue on this mechanism is well shown in the case of a surgeon friend of mine who, when rested after a good night's sleep, has no trouble scrubbing up, but when tired out with emergency calls, develops a dermographia and then cannot touch soap or disinfectants without breaking out with urticarial wheals.

If proof were needed that food allergy is not in people's heads it could be found in the experiences of those many sensitive persons who get laid low every so often after they have inadvertently eaten the food that always makes them ill. For instance, a prominent surgeon who was tremendously sensitive to cottonseed oil, one evening, after dinner in his home, started to retch. He knew immediately that he had ingested some cottonseed oil, but he knew also that his cook wouldn't allow a drop of it to come into the house. The only food that could possibly be suspected was a few dates which the doctor himself had bought that day. Going back to the store he asked the grocer if there was any way in which the dates could have come in contact with cottonseed oil. "Why, yes," said the man. "Because people like their dates shiny, I polish them with an oily rag!" Another physician who, after years of intermittent suffering, learned that he must never touch chicken, continued for a while to have typical attacks of vomiting and diarrhea. Finally he learned that when dining out he must never touch soup because of the ever-present possibility that the cook had enriched it with chicken stock.

WHEN TO SUSPECT THAT A PATIENT'S INDIGESTION
MAY BE DUE TO FOOD ALLERGY

As I have said, I think of food sensitiveness whenever a patient complains of a flatulent indigestion or diarrhea which comes in short episodes. I am particularly on the watch when the patient says he knows of one or more foods that he must never touch. I then suspect that there are others, the harmfulness of which he has not yet recognized. Or I may find that the man who knows he is sensitive to, let us say, egg, is still eating cake, puddings, and other foods containing egg, and I will wonder then if he is getting poisoned in this way. I can remember a woman with terrible and frequent attacks of migraine who knew she

was highly sensitive to milk. Because she had found she was not sensitive to wheat, she ate bread. Finally when I had some bread made for her without milk, the headaches ceased.

Often I can get a good idea whether or not a man's troubles are due to specific food sensitiveness by talking to him a while. If he is really allergic to, let us say, egg, he will tell me that he gets into trouble every time he takes egg in any form, but if he is a "dyspeptic," a hypochondriac, or a food faddist, he will tell a different story. He will say that he cannot digest an egg if it is soft-boiled or poached or fried, but he can digest it if he takes it beaten up in milk! Obviously, then, it is only the appearance of the egg that bothers him. Similarly, the patient with true allergic sensitiveness to, let us say, orange juice, may have no trouble with tomato juice or pineapple juice. The opinionated dyspeptic will maintain that he cannot touch *any* acid food or *anything* fried, or *any* dessert, or *anything* rich, or *anything* warmed over.

If one puts such a dyspeptic on an elimination diet of, let us say, lamb and rice, all may go well until one day when a chop "looks too greasy," and then the patient will vomit and have indigestion. Such information about a patient is highly diagnostic and just as valuable as would be the information that his troubles were all allergic in origin. When I started using elimination diets I didn't realize how helpful they were going to be in unmasking the person with a digestive neurosis or a lack of good sense. Often now I know all I need to know about a woman and her indigestion after only a few minutes spent in trying to get her just to try out the diet. The intelligent allergic immediately welcomes the idea: she sees the logic of it, and she is eager to see what she can learn with the technic, but the opinionated diet faddist sees only objections to the scheme. She won't eat this and she can't eat that, and yet she may admit that she never did try eating the food which she is so sure will poison her! I remember one fussy old schoolteacher who confirmed me in my impression about her and her troubles when she remarked that she would never take phenobarbital because phenol was an acid and she never could take anything acid!

The use of an elimination diet will often show up in one day the type of woman who will not make any effort to get well, or who hasn't enough sense to keep from cheating herself or enough "guts" to put up with a little discomfort for a few hours. She comes in saying perhaps that she would rather die than go on suffering the way she is, but when I ask her to live for two days on a diet of four or five foods, she begins

to whine and to complain that she just couldn't get along without her coffee! Later, perhaps, a relative reports having seen her eating a chocolate sundae, which certainly was not on her list.

Many a person who is highly sensitive to one or more foods will fail to suspect them of being hurtful because they happen to be among those that are being eaten every day. When a man is highly sensitive to some food such as crab or lobster, which is eaten only occasionally, and, besides, has a bad reputation for indigestibility, it generally does not take him long to learn to leave it alone. It is easy to associate the unusual dietetic spree with the punishment which follows so closely. But when the man is sensitive to some food such as milk, which he takes with almost every meal, his bowel is likely to be sore most of the time. Then he not only will be unable to identify the food that is to blame, but worse yet, he and his physician may not even think to blame the distress on the eating of *any* food. In such a case the diagnosis most likely to be made is that of ulcer, cholecystitis, colitis, appendicitis, or neurosis. But even when, in such a case, the patient suspects that some food is at fault, it will never occur to him to suspect milk or eggs because he has been taught to look on them as the best of nature's health foods.

Some dietitians still labor under this handicap. Thus, recently I heard from one of my patients whom, years ago, I cured of chronic diarrhea by interdicting the use of milk. Later, because of a flare-up of an old arthritis, he went to a large teaching hospital where, in spite of all his protests, the dietitians insisted on his taking milk. He was given a pint a day, and soon his physicians were struggling unavailingly to stop a diarrhea, the cause of which they could not find. In another case, a woman who had told a hospital dietitian that she was highly sensitive to egg, was made to eat eggs after an abdominal operation, and as a result had a stormy convalescence.

Many patients who suspect that their abdominal distress, flatulence, or diarrhea is due to the eating of some particular food, get from their physicians only stereotyped diet lists, or instructions to cut out fried and greasy foods, but, as one would expect, such routine advice seldom helps. As I tell patients, it is impossible from looking at them to tell what they can or cannot eat. An intelligent person will often try to do the necessary detective work himself, but usually he fails to learn anything helpful because his methods are wrong or inadequate, and he does not keep a record of his tests and the resultant impressions. Usually he keeps giving up one food after another or he keeps substituting one for another, but

since usually he is sensitive to several commonly used foods, he never happens to get on a diet which is free from every one of those substances that are causing his distress.

To illustrate: A man who suspected that coffee was bad for him shifted to cocoa, but since he was really not sensitive to coffee but decidedly sensitive to cocoa, his discomforts were only aggravated. Then, because he heard that wheat was supposed to be a common dietary offender, he stopped eating it and substituted corn, but since he was sensitive to corn and not to wheat he again became worse. When traveling, he so dreaded the intestinal upsets that often laid him low that in restaurants and railroad diners he avoided all complicated dishes and lived largely on milk toast, eggs, and custards, but in this way he added to his sufferings because he happened to be sensitive to egg. Later, when a physician helped him to discover his few idiosyncrasies and to eliminate the half dozen foods that were poisoning him, he found to his surprise that he, who for long had been supposed to be a bad dyspeptic, could eat with impunity all sorts of reputedly indigestible foods such as lobster, cucumbers, and fried onions.

I always think of the possibility of food sensitiveness when the patient states that he has suffered with one or more of the allergic diseases such as asthma, hay fever, eczema, or hives, or when I learn that he has near relatives who suffer with these diseases.

Food sensitiveness can be one of the factors that upset and irritate a sensitive colon and it is one of the causes that can bring on an attack of migraine. It can cause bloating, cramping abdominal pain, hunger pain, diarrhea, and sometimes constipation. I have seen cases in which constipation disappeared miraculously after the leaving off of some food to which the patient was allergic.

I always suspect an allergic type of diarrhea when the trouble comes in short attacks. The patient may have only two or three loose stools and then may be normal again. This, of course, would suggest that the allergen that caused the trouble was to be found in a food not eaten every day. Canker sores in the mouth seem commonly to be due to food sensitiveness. Another symptom of food allergy is a stuffy nose. In some cases the patient will feel stupid and sleepy for twenty-four hours or more after eating some food to which he is sensitive. I have seen many cases in which food produced a sore liver or even perfect imitations of gallstone colics. Rarely I have seen it cause irritation of the urinary bladder or sudden swelling of one or more joints. I have seen it ap-

parently responsible for spells resembling epileptic attacks, and I have seen it cause dizziness.

METHODS OF FINDING THE OFFENDING FOODS

Skin Tests. Skin tests are often decidedly helpful in identifying the causes of hay fever and asthma, but in my hands and in the hands of many others they have not been of much help in finding the causes of indigestion, eczema, urticaria, abdominal pain, or migraine. Sometimes the skin will react to the offending food, but commonly it either will fail to react positively, or it will react to a number of foods which the patient knows he can eat with impunity. In many cases the skin will not react to any food, and in others it will react to too many. I remember a baker whose hands and arms were so sensitive to wheat flour that he had to give up his occupation. Yet he could eat all the wheat he wanted and he never got asthma or a stuffy nose from breathing it. More surprising yet, his skin failed to react to the injection of wheat.

At the Mayo Clinic we commonly do not bother with skin tests for supposed food sensitiveness. We hate to put people to the expense of such testing, because so commonly it fails to give information of value. Sometimes the skin will react to one set of foods on one day, and a month later it will react to a different set. Under such circumstances it is unfortunate that so many patients get the idea that the skin tests are like gospel truth. Conditions do not seem to be so bad now as they were a few years ago, when I kept seeing patients who had been reduced to skin and bones by allergists who had taken away from them almost all of their foods. The saddest feature was that these patients had been left on the inadequate diet for months after it was apparent it was not doing any good.

Incidentally, I feel almost certain that in many cases the indigestion that follows the eating of certain foods like cantaloupe is not due to allergy but to some druglike substance which stimulates or irritates the bowel and upsets the mechanism which normally causes the gas in the gut to be picked up by the blood and excreted by the lungs.

The Difficulty in the Way of Identifying the Offending Food. It is hard enough to identify offending foods when a man is intelligent, free from prejudices, and glad to co-operate with his physician, and hence it is almost impossible when he is opinionated and full of ideas as to the classes of foods that he will not touch. Usually it is impossible to identify offending foods at a time when the patient has indigestion because of a

cold, a psychic upset, severe constipation, or the taking of a laxative. It is hard also to tell much about the reactions of a person who is easily upset by anything unpleasant about the appearance of the food or the way in which it is served.

To show how difficult the problem can be, I remember a tense, nervous, impressionable woman who, after being comfortable for ten days on an elimination diet, suddenly went to pieces again and vomited for hours. As usually happens in these cases, she blamed one of the foods eaten, but I doubted its culpability because she had been eating it for several days without getting any distress. The husband then solved the problem by telling me that the trouble started when she saw a man come into the dining-room with a large rodent ulcer on his face. Much upset, she got up from the table, went to her room, and began retching. In another case a patient who had been doing beautifully on an elimination diet suddenly "blew up" when she received a distressing telegram.~

Oftentimes when a woman comes in who has been living for months on little more than tea and toast, it is a good plan, before trying narrow elimination diets, to see how much trouble she will have on a "full tray." Not infrequently she finds, to her surprise, that she is no more uncomfortable on this than on a limited diet, and this observation will give the physician much helpful information about her.

WHICH FOODS ARE MOST LIKELY TO GIVE TROUBLE

The question often asked is, Which foods are most likely to give trouble? Unfortunately, most of the published lists are based on skin tests made years ago before it was known how unreliable they often are. The following list is based upon the statements of 500 intelligent men and women who *knew from actual experience* which foods they should not touch.

It will be seen that onions, milk, raw apples, cabbage, chocolate, radishes, tomatoes, cucumbers, and eggs head the list. It is probable that onions are not such bad mischief-makers as one might be led to expect from their position at the head of the list. Their bad reputation may be due in large part to the fact that when, after a meal at which they were eaten, a person belched or regurgitated, he tasted the onion, simply because its aromatic oil had been picked up by the fat from the food and thus floated to the top of the fluid in the stomach. From there it could be tasted every time air went up the esophagus.

FOODS THAT GAVE MORE OR LESS DISTRESS
TO 500 PERSONS

	<i>Per cent</i>		<i>Per cent</i>
Onions (usually raw)	27	Corn	7
Milk, cream, ice cream	26	Pickles and sour foods	7
Apples (raw)	26	Bananas	7
Cabbage (cooked)	25	Peanuts	6
Chocolate	18	Oranges	6
Radishes	17	"Sweets"	6
Tomatoes (more often raw?)	15	Spices	6
Cucumbers	13	Cheese	5
Eggs	13	Peppers	5
Fats, greasy and rich foods	12	Salmon	4
Cantaloupe	11	"Fruits"	4
"Meat" and beef	11	"Nuts"	4
Strawberries	10	Prunes	3
Coffee	10	Peas	2
Lettuce	8	Potato	2
Dried beans	8	"Coarse foods"	2
Cauliflower	8	Fish	2
Watermelon and "melons"	8	Chicken	2
Pork	7	104 other foods	1 or less

It is interesting to note how common an offender milk is. One out of four patients who go through my office cannot take it with comfort. Allergists have been claiming that wheat is the commonest offender, but they base this statement on the result of skin tests, and I cannot confirm it by talking to patients. Worthy of comment is the fact that pies and fried foods were not blamed for indigestion nearly as often as one would have expected them to be, judging from their usual bad repute. Actually, there is no reason why a well made pie should be indigestible, and so far as frying is concerned, it is only pan frying that can injure foods. Foods properly fried in deep fat should not be indigestible.

It is interesting that among the 500 patients questioned there were 7 per cent who had such severe reactions to milk that they could not touch it. Other foods that gave bad reactions were chocolate in 5 per

cent, raw apples in 4 per cent, onions, eggs and tomatoes in 3 per cent, and cooked cabbage, beef, corn, coffee, and bananas in 2 per cent.

Among the producers of migraine, most harmful in order of frequency of mention were chocolate, onions, milk, peanuts, cabbage, eggs, pork, apples, coffee, cucumbers, beef, and oranges. Among the producers of gas, belching, bloating, or excess flatus, some of the commonest offenders, in the order of frequency, were onions, cabbage, apples, radishes, dried beans, cucumbers, milk, "rich foods," melons, cauliflower, chocolate, and coffee. Among the foods that were most often regurgitated and re-tasted were onions, radishes, cantaloupe, cucumbers, cabbage, lettuce, fats, and melons.

HOW ARE THE OFFENDING FOODS TO BE IDENTIFIED?

When the skin tests fail to help, there are two main ways of discovering the foods that are causing trouble. First is the *elimination*, or building-up type of diet, which should be used when the distress complained of is coming practically every day. Before starting such a diet it is important to ask the patient if his symptoms are constant enough so that if he were to get relief he would know it definitely and within a day or two. If he thinks he would, I immediately simplify the problem before me by greatly reducing the number of substances to be tested. The simplest and best method, of course, would be to have the patient eat nothing for a few days, and occasionally, as when I have a sensible and well nourished person who is anxious to go the limit to find out quickly whether his troubles are due to the eating of some food, I have him fast over a week-end. Then if his abdominal distress or constant headache remains unchanged, it is very doubtful if food has anything to do with it. Some allergists differ with me on this point, saying that it takes weeks to clean the offending food out, but I doubt it because almost always when I get a good result from an elimination diet, the relief comes within twelve or twenty-four hours. This is to be expected from the fact that when Hinshaw and I questioned many persons as to the length of the interval between the eating of a food and the coming of the usual distress, we found it generally was from two to three hours.

If during a short fast all the distress complained of should disappear, then the patient should begin to try out one or two new foods each day, keeping always a record of the reactions observed. All hurtful foods encountered should be tested two or three times before they are rejected

permanently. Those that do not cause distress will, of course, be kept, and from them the patient's final diet will be built up.

Since most persons hate to fast, and many are so thin when they go to a physician that further loss of weight would be bad, I usually begin the study with a diet made up of a few foods which seldom produce allergic disturbances. Sometimes a patient will tell me that he is perfectly comfortable when he lives on nothing but, let us say, buttermilk, or beef and potatoes, or some fruit juice, and in that case I start with these foods. If the man was right, as shown by the fact that his distress all disappears, the hardest part of my work is done. I then have a basic diet on which to build, and I know that the syndrome is due to food sensitiveness. If, however, the man knows of no foods which he can eat with impunity, then my first problem is to find a few that will agree with him.

Years ago I found that a useful diet to begin with is one consisting of *nothing but*, and by this I mean *nothing but*, lamb, rice, butter, sugar, and canned pears. These were chosen simply because they are easy to get and seldom give trouble. Nothing else besides water must be put in the mouth during the test period. I have described the technic of using this diet in a little booklet on "Food Allergy," published by Harper & Brothers. During the test period no laxative gum or drug should be taken. Any constipation which may appear during the time of strict dieting should not be viewed with alarm because it is likely to be due simply to the fact that the diet is concentrated and without much residue. If, however, the patient feels distressed or worried over the lack of a bowel movement, he may take an enema of a quart of warm water containing a rounded teaspoonful of ordinary table salt.

If the distress for which the patient sought relief was due solely to the eating of one or more commonly used foods, then, of course, while he is on the elimination diet he will be well, and usually he will get well over night. If he doesn't get well, I will continue the diet for another thirty-six hours. Then if there is no improvement, I will immediately face two possibilities: one, that the distress complained of is not due to the eating of any irritating food, and therefore not curable by any diet, and the other that the patient is sensitive to one or more of the five foods given. To test the latter possibility, I will ask him to remain for a day or two on a diet of, let us say, beef, potato, carrots, and gelatin, and if this doesn't work, I may give for a day nothing but carrots and string beans. If then the symptoms are still present or if during the time the

patient shows clearly that he is a fussbudget, perhaps unreasonable and whiny, or full of prejudices, or if he gets to vomiting because a little too much butter was put on the potato, or a lamb chop looked greasy, I will decide that the trouble is not due to food allergy.

The cases in which an elimination diet has to be adhered to for a few weeks are those in which the disease being studied is migraine or eczema. Naturally in such cases the diet used must be more liberal so that the patient can remain on it for some time without losing weight and getting too bored and restless. In such cases I sometimes use Rowe's elimination diets numbers 1, 2, and 3. Occasionally I just ask the patient to try for a while leaving off milk, eggs, wheat, chocolate, onion, tomato or some other of the most common offenders. For a cereal the patient may use rice, rye, or oats.

When a patient becomes comfortable on a narrow elimination diet, the physician must watch out to see that he doesn't stay on it indefinitely. He must be exhorted to keep experimenting with new foods every week until a balanced, adequate, and comfortable diet has been secured. Often it is particularly difficult to get "dyspeptic" patients to take something raw which will give them vitamin C. It isn't safe always to give concentrated vitamins because not infrequently in the highly sensitive type of person with whom the allergist has to deal, these drugs cause unpleasant reactions, gastro-intestinal discomfort, cramps, or diarrhea.

In order to avoid upsets at the start and the discouragement and loss of weight that are likely to accompany them, the patient should be asked to experiment first with those foods that are not high in the list of trouble-makers. As soon as he becomes comfortable on the lamb, rice, and pear diet, he should begin trying out perhaps gelatin, carrots, asparagus, string beans, rye krisp, beef, potato, turnips, arrowroot cookies, oatmeal, and thin toast.

Sometimes it will be found that small amounts of some hurtful foods can be eaten safely when large amounts are not tolerated, or a somewhat hurtful food may be eaten with impunity twice a week when it cannot be eaten every day. At times it will be found also that a food will cause trouble only when the eater has been sensitized by some adverse influence such as fatigue, menstruation, or the inhalation of pollens or dusts. In other words, two insults may produce symptoms when one alone is not sufficient to do so. I know a physician who can drink whiskey or smoke cigarettes with impunity but if he smokes and drinks at the same time he gets asthma!

The Diary Method. When the indigestion or pain comes in attacks at intervals of weeks or months, one cannot conveniently use an elimination diet because one would have to wait too long to find out if it was doing any good. Under such circumstances I ask the patient to wait until a bad spell comes and then to make a record of any *unusual* foods, such as are not eaten every day, which were consumed during the preceding twenty-four hours. Most suspicion should fall on foods eaten at the meal which immediately preceded the upset.

Many patients will say, "But I tried that and it didn't work," but almost always it will be found that the mistake was made of not keeping a record. Another common mistake of patients when they do keep a record of foods eaten is to put down every food. This gives them such a volume of data that they never even try to make anything out of it. As I tell them, when they have gone in comfort for two weeks, the ordinary foods which they have been eating every day cannot be very hurtful to them, and there is little use in listing them. No, they should list only unusual foods, and then all they need do is to wait until three or four upsets have been experienced, when a glance at the record will probably show what the offender was. This food should then be avoided to see if going without it brings relief. If it does, the suspected food should again be eaten once or twice to see whether the symptoms each time return. If they do, this food should be permanently banished from the patient's diet.

Sometimes when there is doubt about a food, the question of its innocence or guilt can be settled quickly by having the patient eat heartily of it. Then, if no reaction ensues, the patient can stop worrying about that food.

When keeping a food diary the patient should always make a note of any unusual factor, such as fatigue, painful emotion, disgust, anger, or constipation, that may have entered in to complicate the experiment. Even in allergic persons such factors are often responsible for an upset in digestion or a headache. No experimenting should be done for two or three weeks after a patient has had a cold, because at this time the digestive tract may react painfully to the eating of any food.

THE PROBLEM OF MAINTAINING NUTRITION IN A MARKEDLY FOOD-SENSITIVE PERSON

I fear that in the past some of us physicians have been too ready to take away foods from patients and too heedless about searching for new

ones to take their places. As I point out in the little booklet on food allergy, already mentioned, there are rare cases in which it is a big problem where to find enough foods to nourish the patient. I send such persons to search for unusual foods in big markets and especially in those that cater to immigrants. An allergic person is not likely to react violently to a food which he has never eaten before and which is botanically very different from anything commonly used as a food in this country.

Chapter XXII

FLATULENCE

"And frequent belching from the coarse repast."—JUVENAL, Sixth Satire.

*"In Pease good qualities
and bad are tryed,
To take them with the skinne that grows
aloft,
They windie be, but good
without their hide."*

—Regimen Sanitatis Salernitanum.

THE FIRST THING I LIKE TO DO WHEN A PATIENT COMPLAINS OF GAS IS TO find out what he means. Does he mean that he is belching, or is he bloating, or does he feel that gas is trapped in a segment of gut, or is he passing excessive amounts of flatus? Curiously, he may have any or all of these troubles and still not have any indigestion! The chronic belcher is swallowing air because he is nervous or frightened; the woman who bloats may have only an angioneurotic edema of her bowel; the man who feels as if he had gas in his stomach may have only a duodenal ulcer or constipation, and the man who is passing much flatus may only be chewing gum and swallowing much air with the saliva.

PATHOLOGIC PHYSIOLOGY OF FLATULENCE

Contrary to the common impression, most of the gas found in the gut is probably not formed through the fermentation of food. Analyses have shown that most of it is nitrogen left from swallowed air. Some persons swallow much air, but just why, no one knows. Perhaps when they swallow fluids they do not close their lips over the glass, or in them the muscles of the tongue and nasopharynx behave peculiarly. Perhaps their saliva is somewhat ropy so that it traps much air. Everyone, of course, swallows some air with raised breadstuffs. Because nitrogen is not easily absorbed from the bowel, nearly all of that which is swallowed in air must go on through to the rectum to be extruded as flatus.

Often when a person feels that he is distended with gas, roentgenologic

examination of the abdomen would show that he is mistaken. In adults there is usually little gas to be seen in the small bowel. What there is in the abdomen is generally in the colon. This may be due to the greater ability of the small bowel not only to absorb gases but to pass them on rapidly. Some of the gas in the gut is apparently excreted from the blood. Under the influence of emotion such excretion can take place with surprising rapidity.

Flatus does not contain much carbon dioxide or oxygen because these gases are so easily and rapidly absorbed by the bowel and thrown out through the lungs. In herbivorous animals large amounts of gas are constantly being taken up by the blood as it passes through the capillaries of the stomach and cecum. Obviously, any condition that interferes with the return of venous blood from the gut is likely to produce gaseous distention. Pneumonia, which interferes with the passage of gases from the lung, can also produce intestinal distention. As Fine has shown, when a man with a bloated abdomen is made to breathe pure oxygen, there is such a steepening of the gradient of nitrogen tension from the gut through the blood to the alveoli of the lungs that the gas rapidly leaves the distended bowel.

Swallowed air usually is passed through a normal bowel easily and rapidly and painlessly, but gas resulting from the eating of some food to which the patient is allergically sensitive seems often to remain trapped for hours in segments of bowel which are tonically and painfully contracted. Relief comes only when, perhaps, with the taking of food, waves again start traveling down the bowel. When the Emperor Claudius, who suffered from flatulence, uttered an edict that no Roman need feel reticent about passing flatus in public, one of his waggish courtiers suggested that while he was at it he should have passed another law to *enable* every Roman to pass gas whenever it was distressing him!

BELCHING

An ordinary single "burp" is due usually to a reverse wave coming up the esophagus from an overly full stomach, but repeated belching is due always to the swallowing of air. This goes down as far as the cardia and is then returned. Roentgenologic studies show that only occasionally is some of the air forced into the stomach. When a man belches repeatedly in this way it is usually because he is trying to relieve a feeling of distress about the cardia, which I am sure is due often to the running backward of waves on the stomach. He may keep on belching for ten minutes or

more, hoping that eventually he will get up one huge belch which will delight him and put an end to his distress. This big belch can be gotten sometimes by drinking a little bicarbonate of sodium in water. I think what happens then is that with the running out to the pharynx of one big reverse wave the center that was sending such waves out quiets down, and then the man feels relieved just as he would if an attack of auricular fibrillation were suddenly to stop.

It isn't enough to tell a patient that he is swallowing air and should stop it. To be sure, an intelligent and strong-willed patient, when he is convinced that he is, in a way, just scratching himself with air and developing a useless and unpleasant habit, will usually stop. But even then the physician should go ahead to find out how and why the man got to swallowing air. Often it is only a nervous habit, like a tic, or the cracking of knuckles which some ignorant persons indulge in when nervous and ill at ease. Many persons belch just because they are terribly on edge, and in many cases the knee-jerks will be found to be greatly exaggerated. Many a man gets to belching when he is frightened, perhaps by a feeling that his heart is failing or that some indefinable disaster is impending. Business men will wake at night and start to belching when they are under great strain and fearful that they are going to crack up nervously. Often I think they must be wakened by an extrasystole. In other cases, and especially in the case of elderly men, the heart is actually failing under the influence of hypertension or coronary disease, and this is what is producing the distress around the cardia. In a few cases the gas that the patient is trying to get up is in the splenic flexure of the colon. Naturally, then, it cannot be reached, no matter how long the man belches. Not infrequently the disease at fault is in the gallbladder.

Occasionally one finds a particularly expert and noisy belcher who is a near relative of the insane, and his attacks are then due to sudden panicky spells, due perhaps to a fear that he too is losing his mind.

BLOATING

When a woman bloats, much can be learned about the nature of the trouble by questioning her. Has she noticed that the distention follows the eating of any particular foods, or does it follow excitement or strain or fatigue? How does the swelling go down? Is gas passed then or isn't it? If no gas is passed, then the bloating is likely to be of the type that is due perhaps to angioneurotic edema of the gut or to a decided descent of the diaphragm. Certainly it is not due to gas in the bowel; that can

be shown by roentgenologic examination. Usually this type of bloating is found in a nervous woman who is crossed in love. Typical is the fact that the swelling increases during the day and generally disappears during the night. With it there may or may not be discomfort, indigestion, or constipation. Naturally, in such cases enemas and carminatives cannot help. A patient with true bloating due to gas will get relief as soon as the gas is passed.

Curiously, some persons bloat suddenly the minute they drink a glass of water or put any cold fluid into an empty stomach. In these cases it would seem that there must be some reflex disturbance which causes gas to pour from the blood into the bowel.

A FALSE FEELING OF FLATULENCE

A few patients with duodenal ulcer and many with "pseudo-ulcer" will complain, not of hunger pain, but of a feeling of gaseous distention in the epigastrium. This is usually relieved shortly after the taking of food. What happens probably is that the swallowing of food starts waves going normally down the gut, and these cause gas to move on out of some crampy segment. Constipation is a common cause of such distress because the fecal plug in the rectum tends to hold back the waves which would otherwise be moving the gas onward.

EXCESSIVE AMOUNTS OF FLATUS

Persons with an excessive amount of flatus are either swallowing much air or they are suffering with much intestinal fermentation or with some breakdown in or reversal of the mechanism by which the blood normally carries gases out of the bowel. In disease these gases can be excreted from the blood into the bowel. Flatus which has no odor is likely to consist of air, while that which is foul is likely to be produced through the fermentation of food. A bad odor can, however, be picked up by gas or air as it is churned with feces and particularly with liquid feces. Particularly foul flatus is due sometimes to the eating of some food to which the patient is allergic.

CONSTIPATION, A CAUSE

Probably one of the commonest causes of flatulence is constipation. The physician should always ask if the flatulence disappears when the bowels get to moving normally. It helps diagnostically to have the patient take an enema of a quart of physiologic saline solution every day for a

few days to see if this works a cure. In some persons the taking of laxatives of any kind will produce flatulence. In the case of patients with a sensitive colon, even a small mass of fecal material in the rectum may cause gas to keep forming. That the mechanism at fault is a nervous one is indicated by the fact that the minute the fecal mass is expelled the gas will stop forming.

THE EATING OF CERTAIN FOODS

As Hippocrates noted ages ago, and as the peoples of Europe have discovered during the two world wars, a rough diet can be flatulent and windy. There are many persons with a sensitive bowel who cannot handle much roughage. As this irritates the mucosa, it perhaps interferes with the normal passage of gas out of the bowel, or its presence interferes with the digestion and absorption of carbohydrates, or it carries starch down into the colon where it can ferment. As everyone knows, some foods, such as dried beans and cooked cabbage, are particularly likely to produce flatulence. Evidently they contain some chemical substance which irritates the mucosa of the bowel and interferes with the passage of gas through it and into the blood. It is possible that some persons are peculiar in that their bowel is poorly equipped to digest carbohydrates.

Curiously, on questioning 500 patients as to the foods that they knew would give them gaseous distress, Hinshaw and I found that most of the persons complained of onions. Next, in order of frequency, the foods most commonly blamed were cooked cabbage, raw apples, radishes, dried beans, cucumbers, milk, fatty or rich foods, melons, cauliflower, chocolate, coffee, lettuce, peanuts, eggs, oranges, tomatoes, and strawberries.

FOOD ALLERGY

Probably more commonly than we physicians suspect today, flatulence is due to the eating of some food or foods to which the patient is allergically sensitive. The result often is abdominal distention and crampy pain. The important point to remember is that some of the worst gas-producers are not the notoriously indigestible foods but those such as milk and eggs, which have a fine reputation in the sick room. Actually, any food can be the offender. The technics to be followed in identifying such foods are described in the chapter in this book on food sensitiveness.

OVEREATING

A common cause of flatulence is the eating of too much of any food. This overwhelms the bowel's digestive and absorptive powers and probably leaves a lot of food to ferment in the ileum or colon. This causes more trouble by irritating the intestinal mucosa and upsetting its functions.

ANXIETY OR PAIN

In some persons gas appears rapidly in the bowel under the influence of pain, fear, or excitement. Dr. Stafford Warren once pointed out to me that the first film made of a sensitive patient just before he submits to the passage of ureteral catheters usually shows but little gas, whereas the second film made after the catheters are in place often shows that the small bowel has filled with gas.

CHOLECYSTITIS

A common cause of flatulence or a feeling of flatulence, especially in stout women past middle age, is cholecystitis. They often bloat and want to get quickly out of corset or girdle. Just what the mechanism is which produces their distress is not known. In these cases it often helps if the patient will eat less, and particularly if she will eat a light supper. Then she can go to sleep more easily.

COLDS

Some persons with a sensitive bowel suffer from gas when they are coming down with a cold. The virus appears to work some injury to the bowel, because often the worst part of the intestinal upset comes during the prodromal period, when as yet there is no disturbance in the nose, throat, or lung. Perhaps some mucosal change is present in the bowel before it appears in the nose and throat.

DIARRHEA

Many persons with diarrhea are plagued by flatulence, which may be due to a defect in the absorptive functions of the mucosa of the small bowel, related to that which has led to a decrease in the absorption of water and residues from the digestion of foods. Perhaps also the cause of the diarrhea interferes with the mechanism that causes gas to pass through the mucosa and into the blood vessels of the gut.

A SENSITIVE COLON

Many patients with a sensitive, mucus-forming type of colon suffer with gas. This may form when the patient goes out to dinner or to the theater, or perhaps when he entertains in his home. The trouble seems to be due partly to excitement and partly to a vicious circle which starts when a little gas forms and cannot, for reasons of politeness, immediately be passed. The distention of the rectum then causes more gas to be formed until the patient is in misery. That the trouble is due to nervous influences is suggested also by the fact that in some persons it can be blocked by the taking of a little paregoric or codeine.

HEMORRHOIDS

In some persons flatulence appears to be due to the presence of irritated hemorrhoids or an inflamed and infected anal ring. The irritation around this ring seems to cause back-pressure in the left side of the colon, and this causes gas to accumulate in the splenic flexure. Patients with a large amount of gas in the splenic flexure can secure some relief by getting into the knee-shoulder position or by hanging over the side of the bed so that the gas can rise up into the rectum and from there be expelled.

MILD INTESTINAL OBSTRUCTION

Whenever an older person who has never suffered with flatulence begins to note loud borborygmus, he should immediately have the bowel studied by a good roentgenologist and proctologist. I have seen a number of cases in which borborygmus was the first sign of the development of obstruction due to a carcinoma of the bowel.

A FAILING HEART

As I have already remarked, especially in older men who have previously been well, the coming of flatulence after exercise, and particularly when the person walks after eating a meal, should make the physician think of a failing heart with some passive congestion in the bowel.

MILD CYCLIC INSANITY

Every so often I find that a woman who is complaining of gas has a cyclothymic type of personality which causes her to be for a while too energetic and active and then for a while depressed, discouraged, irritable, and tired out. Curiously, her flatulence comes during the periods of depression or irritability and disappears in the periods of good health,

INTESTINAL PARASITES

Since one of the possible causes of flatulence is infestation of the bowel with parasites such as Giardia or amebae, in all puzzling cases of excessive flatus the stools should be examined by an expert.

TREATMENT

From what has gone before, it will be obvious that no one should ever attempt to treat flatulence without first finding out if the patient really has an extra amount of gas in his bowel. If, actually, there is some indigestion or an abnormal amount of gas present, the next thing to do is to get some idea of why it is there.

In all cases I want to know right off how much medicine the patient is taking to move the bowels. I remember a woman whose flatulence was puzzling until I found that she took every day two caroid and bile tablets, one alophen tablet, several tablespoonfuls of a gummy laxative, some hydrocarbon oil, and an occasional dose of castor oil! When I got her to stop all this and to take only an enema a day, her troubles were over.

If the flatulence seems to be due to the eating of some irritating food, an effort should be made with the help of a food diary or an elimination diet to find out what it is. The elimination of roughage, some raw foods, and some of the notoriously gas-forming foods may help, or it may help just to cut down on the amount of food eaten. The relief of constipation by enemas may do more good than can be accomplished with any other measure.

Some of the persons who want to belch because they feel that they have gas in the stomach are helped by taking sodium bicarbonate, perhaps with some aromatic carminative added. It is hard to say how much carminatives accomplish or how they act. An alcoholic drink sometimes works well, and peppermint is probably helpful. In bad cases a teaspoonful of camphorated tincture of opium often works best, but naturally it must not be taken frequently. A number of the carminative tablets on the market contain charcoal, but I doubt if this is of any value because, so far as I can learn, when wet it does not absorb gas. Sodium bicarbonate gives some patients relief, because it helps them to belch, and perhaps because it changes an abnormal and uncomfortable type of gastric peristalsis into a more normal and more comfortable type.

Walking about can be helpful because it starts the gas to moving down the bowel. Often the sipping of water or a little milk, or the taking of a

little food will help by starting waves running down the gut. When the gas starts to move out of the segment of gut in which it has been trapped, the pain goes. When the gas is in the colon, relief can usually be obtained by the taking of an enema. Even when the gas is in the small bowel, an enema may bring relief by removing a plug of feces which has been keeping waves from moving caudad. In some cases a diseased gallbladder must be removed, and in others a failing heart must be rested.

A friend of mine used to cure belching women by asking them if they were accustomed to pass flatus loudly in public. When, shocked and outraged, they said, "Of course not," he asked why then were they so often passing it noisily by mouth!

Chapter XXIII

ABDOMINAL BLOATING, NOT DUE TO GAS

"The swelling was certainly caused at times by emotion. It began at any time, rarely at night. Within a few hours the belly, in place of being flaccid and pendent was swollen enormously."—S. WEIR MITCHELL, Diseases of the Nervous System.

THERE IS A PECULIAR AND FORTUNATELY RARE DISEASE, CHARACTERIZED BY marked bloating or perhaps only a forward protrusion of the abdomen. Every so often the patient, practically always a woman, will bloat so that she will look as though she were in an advanced state of pregnancy. There are several types of the disease with perhaps somewhat different mechanisms, but the syndromes have this feature in common, that the bloating is not due to an accumulation of gas in the bowel. I think it is due mainly to contractions of the diaphragm and other muscles of the abdominal wall. In one rare form of what I think is this same disease there is a long-lasting painful contraction of the muscles of the anterior abdominal wall without any bloating.

In most cases, the abdomen is flat in the morning but as the day wears on, the distention becomes more and more apparent. Usually it disappears during the night. In a few cases, it comes suddenly, lasts a few hours, and then goes as suddenly as it came. Pathognomonic is the fact that the swelling always goes down without the passage of flatus. As one would expect from this, the taking of enemas or purgatives seldom helps. Usually there is no complaint of indigestion, and in many cases, the patient eats and digests comfortably even during an attack.

In spite of the fact that many of these persons do not suffer with obstipation and they seldom look very ill, some of them get operated on more than once for what is thought to be intestinal obstruction. There is no borborygmus, and only in the severest cases is there any vomiting; then it is likely to be due to the medicines taken in the hope of getting relief.

Oftentimes the distention does not cause any pain, and then the woman

is concerned only over her embarrassing appearance. This is particularly the case when she is unmarried. In the worst cases, the condition is so painful that only morphine will give relief. Rarely there will be, during an attack, a constant distress caused by the steady cramp of the muscles of the abdominal wall, and, in addition, rhythmic colicky pains which resemble those of labor; these come at intervals of from two to five minutes.

The syndrome was observed years ago by Weir Mitchell and it has since been described by Bargen et al., Hurst and probably others. The severest form of the disease has been described in Germany under the heading of pseudo-tubes. Because of the rarity of its occurrence, especially in its severer forms, the disease is practically unknown to the medical profession.

Curiously, when the patient lies on the back, especially with the thighs partially flexed on the abdomen, much or all of the swelling immediately disappears, only to reappear as soon as the upright position is resumed. What happens, apparently, is that in the recumbent position the abdominal viscera tend to fall back into the lower end of the thoracic cage and down into the flanks. Furthermore, in some patients the protuberance of the lower part of the abdomen is due in part to an arching forward of the lower spine, and this lordosis disappears when the thighs are flexed on the abdomen; it disappears also when the attack passes. In one of my cases, roentgenological examinations made during an attack showed that the diaphragm had moved down as far as it could go, but in some other cases I have not been able to demonstrate during the spells as marked a descent of the diaphragm as I expected to find. Furthermore, in these patients the taking of a deep breath did not produce the typical distention. I still believe, however, that much of the distention must be due to a descent of the diaphragm.

In most cases the patient's history does not indicate the presence of any disease of the digestive tract, and in none of them that I have studied has any disease been found on roentgenologic examination or exploratory laparotomy by the home surgeon. As I have said, in most cases there is no sign of indigestion or flatulence even during an attack of bloating. In one case I could be certain that the phenomenon was produced by powerful contractions of the diaphragm and the other muscles of the abdominal wall. I felt sure of this because of the sudden flattening of the abdomen which came when the woman breathed amyl nitrite and the spasm let go. A minute later, when the spasm returned, the distention suddenly reappeared. The same phenomenon was observed in a subsequent attack

when vomiting caused the muscular spasm to let up for a moment. In this and other cases it was obvious that the bloating could not be due to any increase in the volume of the abdominal contents. In one case the patient for years has had attacks of rigidity of the muscles of the anterior abdominal wall and labor-like pains, but apparently because her diaphragm does not contract, she seldom shows any distention.

Because in all these cases roentgenologic examinations during the attack showed that there was no excess of gas in the stomach or intestine, I am sure that if there ever is any increase in the volume of the abdominal contents it must be due either to edema of the tissues or to an increase in the amount of blood in the abdominal vessels. Against the hypothesis that there is edema is the fact that none of these women suffered from giant urticaria.

In favor of the hypothesis that the trouble is purely nervous in origin is the fact that in most of the cases a hypodermic injection of morphine soon relaxes the muscles and causes a more or less sudden disappearance of the swelling.

The disease does not resemble pseudocyesis since, in that syndrome, a woman who greatly desires a child gets a painless swelling which, during the course of months, slowly increases in size. It does not go down until the patient is convinced that she is not pregnant.

ETIOLOGY

The characteristics of the syndrome, together with the fact that it is found usually in nervous or psychoneurotic women, suggests that it has a hysterical origin. In several of my cases, the patient was in love with a married man who could not get free to marry her. One woman began to bloat when she ran onto proof of her husband's infidelities, and she got well when she decided to accept the situation and not fuss about it. Later she developed a paralyzing backache which cleared up only when the husband started being good to her again. Some of the patients reported having had in the past curious episodes with symptoms suggesting major hysteria. Evidently they possessed the type of soil in which a severe neurosis could easily take root. In some of my cases there was a suggestion of food allergy, and in one or two instances I almost cured the woman by removing some foods from her diet. I suspect, however, that these cases did not quite belong in the group here described.

Somewhat against the idea of a hysterical etiology are several facts, such as that the attacks come often at times when the patient appears to be

happy and when she has every desire to stay well, or that in most of my cases I could not see how the disease could be of any use to the woman. One observation which shows how involuntary is the mechanism underlying the contraction of the muscles is that in the two worst cases, when I tried the effect of giving ether, the swelling did not disappear until deep surgical anesthesia was secured, and then it reappeared as soon as the patient regained consciousness. In two cases spinal anesthesia caused the swelling to disappear suddenly when the upper limit of analgesia reached the upper end of the abdomen. It is hard to understand how a thin, poorly muscled woman can, for hours, maintain such a powerful contraction of her abdominal wall; I doubt if a professional wrestler could do it.

I have wondered sometimes if the spasm in the abdominal muscles could be produced reflexly by some lesion in the peritoneum or the celiac ganglions, but this does not seem likely, because even such painful abdominal conditions as biliary or ureteral colic, acute perforation of an ulcer, or necrosis of the pancreas do not produce the clinical picture described here.

A curious feature about the disease is that in one and the same patient the attacks will vary from time to time. Thus, two women who with their bloating had been having a labor-type of rhythmically recurring pain lost this for awhile and were left with only the constant distress due to the bloating or the cramplike contraction of the abdominal muscles. In some attacks one of these women would suffer with much vomiting and little pain, while in other attacks she had much pain and not the slightest nausea.

DIAGNOSIS

The diagnosis can usually be made from the history alone. The story is that of bloating which disappears without the passage of flatus. Usually, the patient does not complain of indigestion or flatulence. All the physician has to do then is to have a roentgenogram made of the distended abdomen, and when this fails to show any excess of gas in the bowel the diagnosis can be made.

TREATMENT

As soon as the nature of the disease is recognized, an effort should be made to see if there is any background of unhappiness; if there is, then if possible, something should be done to help the home situation. Often nothing can be done, and then little relief can be expected. In my experience the attacks usually keep coming for years. They tend to come more

and more frequently until the distress may be present almost every day.

In the milder type of case, when the bloating is almost constant, an elimination diet should be tried for a few days, and when the attacks are coming infrequently, a diary should be kept of unusual foods eaten before each upset.

In those cases in which the attacks are so painful as to be prostrating, morphine or dilaudid will probably have to be used. To avoid giving these drugs the attending physician will try everything else he can think of, but since he cannot bear to see the woman suffering hour after hour, he usually ends up by giving the only drugs that will give relief. Then, in spite of every care, the woman soon becomes an addict. I remember one case in which the taking of whiskey sometimes brought about relaxation of the muscles. Sometimes the alcohol had to be reinforced by an injection of a grain of codeine. Amyl nitrite may stop an attack for a minute but the distention is likely to return as soon as the effect of the drug wears off. Fortunately, in many cases there is no pain, and then the woman can await the relief that comes during the night.

For awhile I wondered if section of the splanchnic nerves would help, and then I heard from one of my old patients that this operation had been performed on her without bringing relief. In one case I thought of having the phrenic nerves cut, but then the patient told me that once while she was in an attack her surgeon had injected these nerves with procaine without giving her relief. It is hard to see how in these cases any nerve-cutting operation could help because a contraction of all the muscles surrounding the abdominal cavity, including the diaphragm, must be produced by a "storm" extending throughout most of the spinal cord. It would seem more probable that the storm arises in the brain.

Chapter XXIV

PSEUDO-APPENDICITIS

"Well-meaning practitioners remove organs seriatim until the neurosis is left solus like the grin of the Cheshire cat."—CRUCKSHANK.

"After years of over-doing and being on the verge of a nervous breakdown, my nephew died and with this I went all to pieces. While in this condition, the surgeon at the University, trying desperately to help me, removed my appendix. That was the climax. You can't imagine what that did to my nervous system. A month later the surgeon turned me over to the psychiatrist in whose hands I evidently belonged. That was twelve years ago and I have not yet regained my health."—Extract from a letter from a patient.

"It is no use calling a tiger to chase away a dog."—Oriental proverb.

THERE ARE MANY CASES IN WHICH, BECAUSE OF PAIN, DISTRESS, ACHING, SORENESS, or burning in the right lower quadrant of the abdomen, perhaps with vague indigestion and feelings of fatigue, toxicity, and ill health, the question in the mind of physician and patient will be: Can all this trouble be due to chronic appendicitis, and would it help to operate? Often in desperation an operation is performed and the suspected organ is removed; but rarely does this work a cure, and often the patient is worse. Perhaps then, after a while the abdomen is opened again, and a careful exploration is made, and still nothing is found to explain the symptoms. The question then is, What can be causing the distress? Often one cannot guess but sometimes one can.

WHAT IS THE DISTRESS LIKE?

The first thing to do is to find out just what the distress is like. Is it a real pain? Usually it is only an ache, or "a consciousness of something wrong," or a dragging sensation. Rarely it is associated with flatulence and gurgling in the bowel. Sometimes it is a burning, and then it almost certainly is arising in the skin. Usually it is bearable and does not interfere with the patient's going to sleep. This is important because so often when nothing to explain the discomfort is found, and no good treatment is

offered, it is cheering to have the patient admit that he or she can easily "take it" if nothing more serious is going to develop.

It is highly important to find out if the distress is arising in any part of the bowel, and this can usually be determined best by asking a few questions. If it is not related at all to the taking of food, or to the emptying of the bowel with laxatives or enemas, or to the passing of flatus, it probably has nothing to do with the digestive tract. If it is relieved by walking around it is probably arthritic in origin. This is particularly true if the patient suffers occasionally from spondylitis, with lumbago and sacro-iliac pain.

Often the distress is constant, every day and every night, and not influenced by anything the patient does. Then I think it originates in the nervous system and probably in the brain. It is like the constant headache for which no cause can be found. When, especially in a man, the distress is made worse by standing and the patient has a large inguinal ring on the right side, I suspect that a knuckle of bowel is boring into the internal opening and trying to start a hernia.

Distress that comes particularly when the patient is tired is, of course, likely to be due to tired muscles and nerves. My impression about these persons is that in most of them the distress does not arise in the digestive tract. Only rarely does it arise in the appendix. It certainly is more than a coincidence that the patient is usually a woman and often a rather neurotic or psychopathic one.

Spondylitis. In many cases I suspect the distress is being felt out in the abdominal wall, and is due to the fibrosis or neuritis that goes with spondylitis. Often I can show that it is the anterior abdominal wall that is sore, simply by lifting up a fold and pinching it. In many of these cases the patient, when asked about this point, will say, "Why yes, I could have told you that the distress is out under the skin and not deep inside."

Not infrequently there is a painful right sacro-iliac synchondrosis associated with this type of ache, and in some of these cases I suspect that the arthritic condition around the lower end of the spine is irritating some nerves which are causing the distress around the cecum. What puzzles me at times is the apparent relation between an occasional attack of flatulent indigestion and a flare-up in the pain which, in the particular case, appears to be out in the abdominal wall and typically spondylitic in type. Do these conditions just happen to occur side by side in the same individual, or is the disturbance in the bowel due to some storm which spreads out along sympathetic nerves emerging from the diseased spinal segment, or does

the gassy distention of the bowel cause the backache? Certainly in some sensitive persons the distention of a segment of bowel with gas, or the taking of an enema, or even the insertion of a glycerin suppository into the rectum can produce a backache, which can be relieved instantly by the clearing out of the colon.

Disease in Pelvis and Urinary Tract. In the case of women with pain in the right lower quadrant of the abdomen one should, of course, always examine the pelvis. If ovarian disease were the cause of the pain one should expect it to be worse with each period, and this is rarely the case with pseudo-appendicitis. In puzzling cases I have the right kidney and ureter studied with an excretory urogram to make sure that they are not diseased. Naturally, I do not want to have the abdomen explored before this is done.

Irritable Bowel Syndrome. In some cases the soreness will appear to be but part of the common syndrome of an irritable and mucus-forming colon. I will suspect this the more when the woman passes mucous casts of the bowel and has to be taking enemas all the time. Usually in such cases it can be seen that the soreness of the cecum is only part of the soreness of the whole colon.

Disease in the Nervous System. In some cases, and particularly in those in which the patient was psychopathic to begin with, or in which the abdominal syndrome developed after a psychic shock, or in which no sign of disease was found when the abdomen was explored, I suspect strongly that the disease that caused the discomfort is up in the brain, from whence the distress is projected out to the periphery. In the chapter on pain I point out that abdominal distress is a common initial symptom of psychoneuroses, psychoses, and other diseases of the brain. In the future more effort must be made to recognize these syndromes before unnecessary and futile abdominal operations are performed.

Unknown Causes. In certain cases of pseudo-appendicitis, the severity of the distress and the way in which it persists in an apparently unemotional patient make me feel that there must be some organic cause, but when a careful examination and later an abdominal exploration fail to reveal any, I cannot guess where the lesion is or what it is.

Adhesions. It does not help to ascribe puzzling distresses in the right lower quadrant to adhesions. Adhesions seem seldom to cause symptoms unless they can produce definite intestinal obstruction. Jackson's veil and the "incompetent ileocecal sphincter" seem to have gone entirely out of fashion as causes of pseudo-appendicitis.

Typhlitis. In rare cases pain in the cecum is due to typhlitis, probably with shallow stercoral ulcers. The patient will be a woman who can let her bowels go for a week without getting headache or indigestion. When the colon is kept clean with laxatives or daily enemas the pain soon disappears. In cases of this type the use of the usual gummy bulk-producers is not advisable because, although they may cause the bowels to move every day, so much material may remain in the colon all the time that the typhlitis will not clear up.

Spasm in the Ileocecal Sphincter. In an occasional rare case I suspect that pain in the right lower quadrant is due to spasm in the ileocecal sphincter, which is keeping the residues in the ileum from passing easily into the colon. The symptoms suggest this, and in one such case in which I could see with the roentgen rays that there was marked ileal stasis, the short-circuiting of the sphincter by an ileocolostomy brought a complete and lasting recovery.

Mesenteric Lymphadenitis. Occasionally, when pain in the right lower quadrant is present in a young person who has been running a little fever and has been in poor health and perhaps confined to bed for some weeks or months, the trouble may be due to a subacute mesenteric lymphadenitis. This is a poorly understood illness due to some virus, related perhaps to the one which causes regional enteritis.

Regional Enteritis. Regional enteritis must always be suspected when, along with pain and fever, there has been some diarrhea. In some of these cases I have been greatly helped by finding a high blood sedimentation rate and perhaps a leukocytosis which warned me that I was dealing with a smouldering infection and not with a harmless type of "functional diarrhea." Usually the diagnosis can be made by the roentgenologist from the characteristic narrowing of the last segment of ileum. In these cases it is dangerous to remove the appendix because a fecal fistula may then form.

Amebic Disease. Amebic disease affecting the cecum must be thought of, and the parasites or their cysts should be looked for. Because the amebae and cysts sometimes fail to appear in the stools, in puzzling cases it is well to see what a hypodermic injection of emetine will do. If the trouble is due to amebiasis, emetine should promptly bring some relief. Because appendectomy in persons with subacute amebiasis generally results in the death of the patient, it might be a good rule in all suspicious cases to give the patient who is about to be operated on an injection of emetine. Certainly, if fever should shoot up after the removal of a suspiciously "fat-looking"

appendix, the surgeon should immediately give an injection of emetine. The value of this procedure has been shown by John Berkman.

"Chronic Appendicitis." The physician who wonders if, in a given case of puzzling indigestion or distress in the right lower quadrant, it would do any good to remove the appendix, can find help and guidance in an article I wrote a few years ago after studying the results of appendectomy in the cases of 385 persons who came through my office after having been operated on elsewhere (*J.A.M.A.*, 114:1301-1306, 1940). Among those who had never had anything resembling an acute attack of appendicitis, less than 1 per cent were relieved of their symptoms, and 24 per cent were made worse. Among those who had had an acute attack or were operated on in one, 67 per cent were cured.

Evidently then, in most cases the only criterion on which one can safely base the diagnosis of chronic appendicitis is the history of one or more attacks that resembled an attack of acute appendicitis, with pain severe enough to keep the patient awake most of a night. In my series there were many persons who were operated on because of a roentgenologic diagnosis of appendicitis, and in every one the persistence of the symptoms showed that the diagnosis was wrong! Actually, there is no good or trustworthy roentgenologic sign of appendicitis, and many good roentgenologists never attempt to make the diagnosis. It is unfortunate that so often in their reports they feel they must describe the appearance or position of the organ because the fact that it points up or down or empties fast or slowly, or is short or long, often causes the patient to be alarmed and to welcome an unnecessary operation.

The clinician will do well to remember that appendicitis is largely a disease of the young, and hence there is little likelihood that it is responsible for the indigestion of a person past middle age. To be sure, the organ does sometimes get inflamed in older persons, but the physician who often makes the diagnosis of chronic appendicitis in patients past forty is bound to be wrong most of the time simply because in such persons the disease is so rare.

Every so often I see a college student who, perhaps following a bad cold or an attack of "acute indigestion," lost his energy and sense of well-being and ability to study. After that he dragged around, feeling toxic, and perhaps suffering an occasional attack of cramps. Such a youngster is likely to get well after an appendectomy.

An important point brought out by my study was that if, in the face of a very doubtful diagnosis, a surgeon does decide to remove the appendix,

he should not make a small McBurney incision, but a large right rectus incision so that he can explore the abdomen. He should do this so thoroughly that it need never be done again. With the idea of preventing more useless laparotomies, he should give the patient a copy of the notes dictated at the close of the operation. By doing this he can give the man something at least for all his suffering and expenditure of money.

Always, before operating, the surgeon should make as certain as possible of the status of the right kidney, the gallbladder, and the duodenum. As some wag once said, the commonest operation now being performed in this country for duodenal ulcer is appendectomy, and it practically never does any good.

It helps diagnostically in some cases to keep the colon clean with enemas for a week. Then, if there is no change in the symptoms the trouble is probably not arising in the cecum.

TREATMENT

As I have intimated, the treatment depends on what seems to be the cause. If no cause can be found the patient is usually willing to stand the ache. All he or she wanted to be sure of was that "it wouldn't turn into anything."

Occasionally, when the distress is in the abdominal wall the injecting of the subcutaneous tissues with a dilute solution of procaine will give relief. Sometimes, after several injections, the cure is permanent. Heat and massage will sometimes help. If the patient is jittery and worn out a rest cure may help. Diet rarely helps. Keeping the colon fairly clean will help cases in which the disease is due to stagnation in the cecum.

In men with large inguinal rings and pain made worse by standing, it may help to repair the incipient hernia.

Chapter XXV

PSEUDO-ULCER

"If a man has heartburn and his stomach holds fire, his chest rending him. . . ."—From a Babylonian formulary.

"As for me, suffer me to sup, afflicted as I am; for naught is there more shameless than a ravening belly which biddeth a man perforce be mindful of it."—HOMER, "Odyssey," VII.

". . . and so back again, in our way drinking a great deal of milke, which I drank to take away my heartburne. Home, and to bed in some pain, and fear of more. In mighty pain all night long, which I impute to the milk that I drank upon so much beer, and the cold, to my washing my feet the night before."—SAMUEL PEPYS.

EVERY YEAR I SEE MANY PERSONS WHOSE SYMPTOMS SUGGEST THE PRESENCE OF an ulcer, and yet all efforts to demonstrate one fail. In some the syndrome so closely resembles that of ulcer, with attacks of hunger pain recurring several times a year, that I am surprised when the roentgenologists and the gastroscopists cannot find a lesion. In many others, certain atypical features of the syndrome will give me warning, and then I will not be surprised or incredulous when the roentgenologist reports a normal stomach and duodenum.

Years ago I used to turn over an occasional one of these patients to the surgeons for exploration of the abdomen, but when in almost every case nothing was found, I decided that thereafter I would seldom go against the negative report of the roentgenologist, especially when it agreed with my impression from the history. I was impressed also by the fact that in a few cases in which, because of some accident or acute illness I was able to get a necropsy, no lesion was found to explain the hunger pain. Some physicians have expressed their belief that in all of these cases the trouble is due to gastritis, but on several occasions the gastroscopists and pathologists have shown me that this is not true.

In some of the patients with pseudo-ulcer the gastric acidity is abnormally high just as it is in cases of duodenal ulcer. Curiously, also, I have

seen a number of cases in which there was hemorrhage from the upper part of the digestive tract, and yet, at operation or necropsy, no lesion was found to explain it. Curiously, a considerable percentage of the patients I have seen with these unexplained hemorrhages were physicians. The fact that pseudo-ulcer is seen almost always in men suggests strongly that it has some anatomic basis because functional troubles tend to appear more frequently in women.

As I said, since I have had the opportunity of seeing many cases of this disease I am able sometimes to hazard the diagnosis, as when the symptoms are atypical and perhaps when they have been present for years without bringing on any of the complications of ulcer. Often the hunger distress is more a feeling of gaseous distention than pain, but this is not pathognomonic because the same complaint is made sometimes by patients with ulcer. Often the relief obtained from the taking of food and alkalis is not perfect but, again, this is true in many cases of definite ulcer. Sometimes there is distress before breakfast, and this point is helpful because seldom does one get this story from adult patients with real ulcer. Helpful also is the fact that the patient with pseudo-ulcer is rarely waked at night. My impression is that with pseudo-ulcer the attacks are not likely to last so long as with true ulcer. The pain or distress may be present for a day or two and then absent for a few weeks.

Often I find that there is a large psychic element in the causation of the attacks, but this is not helpful in making the diagnosis because strain, fatigue, and worry have so much to do with causing a real ulcer to flare up. Often, relief comes the day the patient goes on a vacation, but again, this occurs sometimes in cases of ulcer. I think of pseudo-ulcer when a man tells me that, for years, he has had no periods of relief.

Most important in some cases is the discovery that constipation is the essential factor in bringing on an attack of hunger distress. I feel sure then that the pain is being produced by back-pressure from the colon or the ileocecal sphincter. The taking of food relieves such patients because it helps to start waves running down the bowel. It probably changes a localized, stationary, and crampy type of contraction into a series of traveling waves which cause no discomfort.

Occasionally an attack of hunger distress will appear at a time when the patient is coming down with a cold, and then for two or three weeks, hunger pain will show up every day no matter what the patient eats or doesn't eat. In such cases I think there is probably some inflammation in or some toxic effect on the nerves in the wall of the bowel which causes

its reflexes to be exaggerated and its contractions to travel irregularly and somewhat painfully.

In those few cases of apparent pseudo-ulcer in which, on re-examining the patient after an interval of a few years, the roentgenologist does find an ulcer, I think a lesion was missed the first time. In most of the cases in which I have been able to follow the course of the patient's illness over many years I have been impressed by the fact that an ulcer did not develop. I know one physician who had symptoms of pseudo-ulcer for some eighteen years, during which time no lesion could ever be found. He then lost his "ulcer" and changed to a cardiac neurosis. Another physician who has had hunger pain off and on for over twenty-five years and a free acidity around 80 units, has had many roentgenologic studies made and never has there been any sign of an ulcer. He was practically cured when he learned the great need for avoiding constipation.

From all these observations I have concluded that pseudo-ulcer is rarely, if ever, a forerunner of ulcer. Perhaps some gene necessary to the formation of ulcer was left out of the heredity of these patients, much as in the case of a brother of an epileptic who has the irritability, the quick temper, and the delta brain rhythm, but not the fits.

The important point about pseudo-ulcer is that the physician should know that there is such a disease and that it is fairly common. This knowledge will then serve to keep him from ordering many a useless abdominal exploration. He will be less likely also to waste the patient's time and money on repeated Sippy treatments when one, well carried out, does not bring any long-lasting relief.

TREATMENT

The treatment in many of these cases consists first, of seeing to it that the colon does not get too full before it overflows. Although the patient may have one or more bowel movements a day, if his colon is always so full of feces that the ileum cannot easily empty its contents into the cecum he may get hunger pain. This will be relieved as soon as food is eaten and begins to go through the small bowel again.

It is highly important that food be taken the minute pain appears because this is likely to nip an attack of distress in the bud. Let the pain go unrelieved for an hour or two, and then food or alkalis may no longer relieve it satisfactorily. This suggests to me that at times in these cases there is some duodenitis due to an excessively long period in which unbuffered acid remained in contact with the mucosa.

Because of the need for taking food quickly before the acid can cause much irritation of the gastric or duodenal mucosa, I advise the patients always to carry with them some tablets of malted milk. The minute pain is felt, or preferably some time before it is expected, half a dozen such tablets should be chewed up and swallowed, preferably with a little water. If food is taken quickly in this way, a threatened attack may be aborted, and the patient may be spared several days or weeks of discomfort. Alkaline tablets may also be used if the patient finds that they work well.

Often after taking food the patient passes a little gas and is relieved of his distress. Because of this, in many cases, it will look as if the trouble were in the colon. Against this idea is the fact that the pain is usually felt in the epigastrium, and when soreness comes, it too is likely to be felt high up near the lower end of the sternum. Because of the arrangement of nerves in the abdomen, pain arising in the epigastrium means that it is coming from stomach, gallbladder, or duodenum, and not from the colon. One possibility is that as the colon distends with gas it rises in the abdomen and presses against the anterior abdominal wall in the epigastrium. I think this sometimes happens and perhaps it explains why the pain will sometimes stop the minute the patient gets into the knee-shoulder position.

In these cases, if the patient does not secure a good bowel movement after breakfast he should immediately take an enema of physiologic salt solution. If he waits until night he may find that already he has started himself on an attack of hunger pain which can last two or three weeks. Oftentimes the man will keep hoping that his bowel is emptying all right because he will have two or three movements during the day, but he will be right in suspecting that, taken all together, the amount of fecal material voided was not equal to what he passes after breakfast when his bowels are working well. Next day there will come the hunger pain, and then when the man takes an enema he will find that the colon was filled with fecal material.

In a few cases I have seen all the symptoms of pseudo-ulcer produced by food allergy, so that the disease was cured when the offending food was found and removed from the diet. I know a few cases in which the distress was so severe that a surgeon opened the abdomen, fully expecting to find an ulcer. But none was seen, and finally it was discovered that the hunger pain was due to the milk that the patient was taking every hour or two in order to get some relief! Hence it is that patients with pseudo-ulcer should always be put on a narrow elimination diet at least once to see if relief

can be obtained in this way. The technic of this procedure is described in Chapter XXI.

I suspect that the eating of food to which the patient is sensitive so increases the reflex irritability of the bowel that it is likely to cramp painfully at eleven in the morning and five in the afternoon simply because at those times a cycle of irritability or activity in the digestive tract reaches a peak. That there is such a cycle has been suggested to me by several observations such as that when the level of irritability of the bowel has been raised, as by a cold, hunger pain will come at the usual time, even when the patient has fasted for a day or two and therefore has no food going through him. Obviously, then, the pain cannot have been due to the arrival of food or its residues at any point in the gut.

Chapter XXVI

PSEUDO-CHOLECYSTITIS AND THE POSTCHOLECYSTECTOMY SYNDROME

"What grief hath set the jaundice on your cheeks?"—SHAKESPEARE, Troilus and Cressida.

"Choler is hot and dry, bitter, begotten of the hotter parts of the chylus, and gathered to the gall: it helps the natural heat and senses, and serves to the expelling of the excrements."—ROBERT BURTON, Anatomy of Melancholy.

THERE IS A GOOD-SIZED GROUP OF PATIENTS WITH SYMPTOMS RESEMBLING THOSE of cholecystitis but with a normally functioning gallbladder. Sometimes a woman with this syndrome will be operated on, and in desperation the surgeon will remove the gallbladder. Then when the symptoms persist, as they usually do, it will be obvious that they were not due to cholecystitis. I have seen such patients go on to have one typical colic after another. Usually the woman has a sore and tender liver, and not infrequently she has a flatulent type of indigestion.

In some of these cases I believe the pain is being felt out in the abdominal wall, and that the cause is a spondylitis; in other cases it seems probable that the symptoms are due to the patient's nervousness, psychopathy, or fatigue, or a combination of all these factors. In other cases it can be shown that the trouble is due to an allergic sensitiveness to some food, and a cure can then be worked by identifying and interdicting the offending substance. Unfortunately, there remains a group of cases in which it is hard to guess what the cause is. Especially in those few cases in which the patient runs a fever, it would seem as if there must be some infection or organic disease in the liver or bile ducts. Rarely, there will be the history of an attack of jaundice. As every surgeon knows, many of the patients who have suffered long with cholecystitis have signs indicating the presence of hepatitis, and such hepatitis may be at fault when the symptoms do not clear up entirely after cholecystectomy. Somewhat against this idea is the fact that many a patient with an advanced but well

compensated cirrhosis of the liver does not complain of any pain or indigestion.

In favor of the presence of some organic disease is the marked tenderness noted often when the liver edge comes down against the palpating hand as in Naunyn's or Murphy's maneuver. And yet this marked sensitiveness of the liver is not easy to explain in view of the fact that at operations under local anesthesia, the hepatic substance appears to be without sensory nerves. Perhaps, as in the bowel, so here there are some nerves but they are few and far between, and many have to be stimulated at one time if anything is to be felt.

I think that in many cases of pseudo-cholecystitis there must be some abnormality in the metabolism of the liver which leads to the production of chemical substances which irritate enough nerve endings to cause soreness and pain. Another cause might be a swelling of the liver with a resultant painful distention of the capsule. This sort of thing certainly causes pain in cases of failure of the right side of the heart. In many cases a woman will say that she has had the soreness and pain day in and day out and all day and all night for ten years without much change in severity, all of which suggests that she has the type of nervous (?) pain seen in neurotic women.

Once while studying a woman with a sore liver and occasional colics, which persisted after the removal of a normal gall-bladder, I was much impressed by the fact that when she had a T-tube in her common duct, she put out, during her bad spells, a blackish, viscid type of bile, very different from the golden yellow fluid which usually drained away. When she saw the black bile coming away she remarked that during her bad spells the stools often changed in color and odor and consistency and looked black. Other patients have told me the same thing. This woman found, after several fruitless operations, that the eating of chicken fat and a few other foods would promptly bring on one of the painful attacks. A contributing factor was overwork and emotional strain. The fact that in some of these cases colics keep coming even when the woman has a T-tube in the common duct shows that the cause is not necessarily a dyskinesia of the duct and the sphincter of Oddi.

As I have said, in many cases this syndrome continues after the removal of a gallbladder which appeared to be diseased. I have seen it continue also in cases in which, at operation, the gallbladder looked fairly normal but, when cultured, was found to be heavily infected with bacteria. In a few such patients the removal of the gallbladder helped, but in most cases

it did not. When the syndrome is present after cholecystectomy, the question often must arise, "Was a stone left in the common duct?" Hints that can be helpful in the answering of this question are to be found in the section on the postcholecystectomy syndrome.

In my experience the treatment of patients with this disease is disappointing and unsatisfactory, except in those cases in which one can find that one or more foods are causing the trouble. In them the cure will sometimes be miraculous. When no food can be identified as the cause of the pain, all treatment is likely to be futile.

THE POSTCHOLECYSTECTOMY SYNDROME

One of the most difficult diagnostic problems that the gastro-enterologist has to face every so often is, What is wrong with the patient who, after cholecystectomy, continues to suffer, or after a period of relief, suffers again with indigestion, flatulence, soreness, or pain in the right upper quadrant of the abdomen, and perhaps even with colics? Many of these persons are miserable and some are incapacitated. Usually the main problem before the consultant is to decide if it is justifiable to operate again and explore the common duct.

The first thing to do is to go back carefully over the history of the disease as it manifested itself before the operation. It is essential to learn if at the beginning the patient had definite symptoms and signs of cholecystitis, and, if so, whether there are good reasons for believing that this disease was responsible for the symptoms presenting at that time. I tell elsewhere in this book the story of a woman who, although she had gallstones, owed all her suffering to migraine, and hence did not get any help from cholecystectomy. In many another case a study of the record will show that the removal of a calculous gallbladder failed to change the woman's complaints or to improve her health because all or most of her symptoms were due to constitutional inadequacy, menopausal depression, great marital unhappiness, food allergy, hypertension, pyelonephritis, a diaphragmatic hernia, a duodenal ulcer, or an irritable colon.

I always want to know if before her operation the patient ever had true colics requiring morphine. Was she ever jaundiced after such a colic, and did she have a flatulent indigestion that made it hard for her to get to sleep after eating a heavy supper? Or was the gallbladder removed just because the roentgenologist thought it emptied slowly or because crystals or pus cells or streptococci were found in bile-stained material removed from the duodenum? Naturally, when it appears doubtful if the

woman ever had cholecystitis, it is all the more doubtful if the symptoms she complains of now after her operation are due to some residuum or complication of the disease.

I always want to know what the surgeon said after the operation. Did he say he found stones, and if so, were there many or few? If there were no stones and there was no improvement noted after the operation, the chances are large that the gallbladder was normal or that the little disease found in it was unimportant. If there were many medium-sized and small stones and the common duct was not explored, there is at least one chance in seven that some stones were left in it. There is less probability of this if only one or two large stones were found in the gallbladder. If a T-tube was left in the common duct it is helpful to learn that bile drained for six weeks or more because then there will be a suspicion that a stone was left to produce some obstruction at the sphincter of Oddi. It may help to know that the surgeon found signs of marked hepatitis and pancreatitis because it may be that these changes, together perhaps with some cholangitis, are keeping up the distress.

It may be helpful to learn whether, after operation, symptoms disappeared for a year or two because this would indicate that all the patient's troubles were due originally to cholecystitis, and that later some new disease developed, or a stone formed in the common duct or dropped down from some hepatic duct. The findings at some necropsies show that stones can remain in the common duct for months or years without producing serious symptoms. The continuation of definite colics after the removal of a calculous gallbladder indicates that stones were left in the common duct. In cases of doubt it is helpful to learn that the pain is the same as it was before the operation; it comes in the same place, hurts in the same way, radiates in the same way, and interferes with breathing in the same way. A new type of pain will suggest the coming of a new disease.

If with some of the spells of pain there is fever or a chill, and later a tinge of jaundice, the diagnosis of common duct stone can be made with a fair degree of certainty. It can be made with even greater certainty if a measurement of the serum bilirubin made right after an attack shows that the amount of biliary pigment in the blood rose a little. Such a sub-threshold jaundice, with a serum bilirubin of from 2 to 4 mg., has great diagnostic value. Soreness in the right upper quadrant after an attack of pain also suggests organic disease around the cleft of the liver.

The finding of crystals of bile salts during the microscopic examination

of material removed by tube from the duodenum sometimes helps in the diagnosis of stones. A scout roentgenogram made of the duodenal region seldom helps because seldom are the stones which are left in the common duct opaque enough to cast a recognizable shadow.

In the case of a neurotic woman with multiple complaints, the failure to get *any* relief from the operative removal of a non-calculus gallbladder indicates that there never was anything wrong with the organ, and under the circumstances, the physician who is trying to explain the symptoms need not worry about residual disease in the bile ducts.

Unfortunately, in not a few cases the origin of these postoperative distresses and even severe colics remains a puzzle because no cause is found, even on surgical exploration or at necropsy. At present there is a tendency to explain these pains on the basis of a dyskinesia, or a failure of the sphincter of Oddi to relax in the face of waves of contraction coming down the common duct, but Dr. Snell tells me he doubts if such dyskinesia ever causes much pain. In other cases the pain might conceivably be due to a spasm of the muscle lining the duodenum.

I see each year a few cases in which chronic diarrhea began following cholecystectomy, but what the mechanism is, I cannot guess.

As I note in the section on pseudo-cholecystitis, in a few of the cases in which pain and soreness around the liver and perhaps severe colics continued after cholecystectomy, I have been able to work a spectacular cure simply by removing one or two foods from the patient's diet. Evidently in these cases the syndrome had, from the first, been due to food allergy.

In many of the cases of postcholecystectomy syndrome there is no good evidence to indicate that there are stones in the common duct, and then the physician had better advise against an exploratory laparotomy, especially when the patient is neurotic or has multiple complaints or other troubles, such as hypertension or a stormy menopause, to explain her illness. Some surgeons feel that it is worth while at times to put a T-tube into the common duct and let the bile drain to the outside for a while, but I am not hopeful about this procedure if only because I have seen cases in which the colics continued even while the tube was in place.

Usually when an elimination diet fails to help a patient with this disease, the results of treatment are unsatisfactory and disappointing. Most physicians prescribe a fat-poor diet, but in many cases fats do not appear to be causing the trouble. Why should they when there is plenty of bile running into the bowel? Often it is a *large meal of any kind* which causes distress. Sometimes it helps much to shift the heaviest meal from

evening to midday so that the patient can more easily get sleep at night.

The most distressing cases are those in which colics persist in coming after the common duct has been thoroughly explored and found to be free from stones. The gastro-enterologist dreads to see one of these patients coming into his office because he can do so little to help. In desperation he gives some proprietary laxative which has some bile added to it to help it sell, or he gives bile acids with the hope that if he can make bile flow faster through the ducts the patient will get better. For a while some physicians were treating these persons with the Lyon technic of injecting a solution of magnesium sulfate into the duodenum, but the procedure seems now to have gone out of fashion. In Germany they give Carlsbad salts and apply hot compresses to the abdomen. It is said that nitroglycerin will sometimes stop the colicky pains. A few of these patients become incapacitated and some become habituated to morphine. Some who are running a little fever can be rehabilitated by a long rest. I believe they should be treated much as a person is treated when he has tuberculosis. Only rarely, however, can one get them to rest properly.

Chapter XXVII

REGURGITATION OR “NERVOUS VOMITING”

“The period of my life about which you ask me, I can only look back upon with a sort of disgust which makes it unpleasant for me to speak about; it is only the hope that some one else may be helped by it which makes me willing to speak of it at all. I was brought up by an invalid aunt, and I often think of what you once said to me, that the women who indulge their own nervous systems are those who most indulge children. My aunt taught me very early to notice and dwell upon any little symptom I happened to have and, when I was fourteen, I unluckily hurt my knee. For this I was kept in bed two weeks, and, when I wanted to get up, I was told to keep quiet. Under this enforced rest my appetite failed, and I began to have nausea. My first vomiting created a sensation in the household, which I think, as I recall it, I enjoyed as making me important. Very soon I got to vomiting every day; there was none of the nausea which I had at first, and which I have since been familiar with as a part of sickness. It gave me no annoyance to cast up my food, and was indeed rather a relief. From this time I was surrounded with sympathy and doctors. A few months later my aunt died and I was left in charge of an uncle and aunt, and became one of a large circle of children, among whom I got very little of the care which had before this encompassed me. I remember well that I resented the change, and, finding that if I took little food I excited alarm, I began to yield to the tendency to excite distress and anxiety by taking little or no food at times. I suppose this abstinence gave rise to the nervousness, and finally to the spasms which came on at this time, at least I can give no further explanation; I only know that every new symptom caused new anxiety, and that I somehow liked it all. After a while a new doctor was called in, and under his rule, which was very stern, I got better, and was able to leave home and go to the seashore, where, under new influences and interests, I lost all of my symptoms except the vomiting, which seemed to me uncontrollable. I lost this only by resolute efforts; in fact, by efforts so desperate that often, when food rose in my mouth, I swallowed it again. I do not think I should ever have so tried if I had not overheard a person in whom I had a great interest express himself as having heard with disgust of my habit. Then, as you know, I learned from you that the habit could be broken; I succeeded, as you know, and am married and have a little girl, and I can promise you that she at least will never be allowed to go through what I have done.”—Copy of a letter to S. Weir Mitchell from a patient, “Diseases of the Nervous System,” page 82.

THERE IS MANY A WOMAN WHO BEGINS TO REGURGITATE HER FOOD SOON AFTER she leaves the table, or perhaps even before. She may jump up in the middle of the meal and hurry to the bathroom. This disease is usually described under the heading of "nervous vomiting," but this is a most unfortunate term because when it comes to making the diagnosis of the disease, *the most important point to note is that the patient is not vomiting; she is regurgitating like a baby.* The food is coming back in mouthfuls, without the accompaniment of either nausea or retching.

A highly diagnostic point is that this regurgitation starts soon after the patient eats. Vomiting due to organic disease is far more likely to come late after a meal. It is helpful often to find that when the patient is dining out or in a restaurant she is more likely to hold the food down; at home she may regurgitate into her napkin or even onto the dining-room floor. Some of these persons keep bringing up mouthfuls of food into a handkerchief as they talk to the physician in his office. Often the patient explains that she regurgitates to get relief from a distress or pain which comes in the epigastrium soon after she eats.

Usually the woman is nervous, constitutionally inadequate, or somewhat psychopathic, and in many cases I have gotten a story of unhappiness and frustration. I have reason to believe that there sometimes is a family predisposition to the trouble, and in some cases I know that some of the relatives ruminate; that is, they not only regurgitate but they chew and swallow the food again. Some find the process not unpleasant since the food tastes as good the second time it is in the mouth as it did the first time.

In years of practice I have seen this disease in only a few men, and interestingly, a number of these were rather feminine in build and temperament. The trouble is always a functional one, and only once in thirty years have I seen it helped by any abdominal operation. In that case a girl who had regurgitated for years eventually developed a duodenal ulcer with obstruction at the pylorus. I have seen some of these girls who were operated on five and six times without benefit. Even when something like a diseased gallbladder can be found and removed, the regurgitation goes on unchanged because it is a disease all by itself. Occasionally I have seen it associated with anorexia nervosa.

In some cases the regurgitation comes when the patient is tired and nervous or under strain, and it goes away when she becomes rested. Often so little food is regurgitated that the patient's weight remains unchanged, but in a few bad cases the patient becomes emaciated. Sometimes the

woman is not much concerned over her trouble, and then it is the relatives who worry and fuss.

TREATMENT

Treatment must always be along the lines of exhorting the patient to break herself of what tends more and more to become a bad habit. Some of these persons can do this fairly easily, while others find it very difficult because they suffer so much when they resist the tendency to regurgitate. Naturally, such persons slip more and more into the habit of letting the food come up because this is the easiest course to follow. Then it takes much will power to stand the distress of holding the food down hour after hour, and if the patient hasn't good sense and a strong desire to get well, she is likely to go on as she is.

The physician must be positive and unwavering in his diagnosis; he must be sympathetic and must admit that the conquest of the habit will be difficult and painful, and that sometimes the food will come up in spite of all efforts made to hold it down. He may have to sell the patient the idea that it is worth while making the effort to get cured, and in bad cases he may for a time have to insist on a rest-cure in a hospital, where the woman can get away from nagging or overly solicitous relatives. I have seen a few cases in which much relief was given by removing from the patient's diet a few foods which exaggerated the tendency to regurgitation. Evidently the patient was sensitive to them. In a few bad cases with anorexia I have had to use tube feeding in a hospital to overcome the emaciation. After that, with rest and encouragement, the woman was able to conquer the habit.

One woman, a trained nurse who was angry with me when I told her that her trouble was a neurosis, finally consented to take a much needed rest-cure in a hospital. Years later she wrote a letter of apology in which she said that she had learned that the return of a tendency to regurgitate was always a danger signal—something to show her that a long, hard case was getting her down, and that it was time to stop and take a rest.

Chapter XXVIII

HEADACHE

"How many head-aches a passionate life bringeth us to."—SIR PHILIP SIDNEY,
Apologie for Poetrie, 1594.

"Dragged back into headachiness by a little too much fatigue."—GEORGE
ELIOT—Life.

MANY PERSONS SUFFERING FROM HEADACHE GO TO A GASTRO-ENTEROLOGIST FOR relief because they feel so sure that if their liver were to be "toned up" or if their constipation were to be cured, they would be well. Unfortunately, in most cases they are doomed to disappointment, and this is particularly true of the patients who have migraine. As I say in the chapter on migraine, I feel sure that although one of the exciting causes for this disease may be in the abdomen, the primary cause is never there. Everyone knows that constipation can cause headache, but, as I showed years ago, this type of headache must usually be due to irritation of the nerves by the mechanical distention of the rectum, because in all but a few cases it disappears within a few minutes after the bowel is emptied. There is another type of headache which is produced by hunger and relieved by eating or by taking a cup of coffee. It must be obvious from such facts that there is a connection between the nerves of the digestive tract and those of the blood vessels of the brain. I say blood vessels because the impression gained from recent studies has been that the brain substance is insensitive, and it is only the arteries which, when overly distended, give rise to pain.

Another type of headache which the gastro-enterologist can sometimes relieve is the allergic one. Many a time when I have found an offending food and have excluded it from the patient's diet, the first comment he made was that his head felt good again. A friend who is usually immune to headache can get one from eating chicken or from drinking certain Rhine wines.

When a woman complains of headache it is helpful to know that she has always had a strong tendency to this type of trouble, perhaps like her mother before her, because this makes it the more probable that she has

the type of ache that is due to nerve strain, overwork, or exhaustion. It is probable also that in such a woman a complete and permanent cure can never be hoped for because fatigue or tenseness will always bring distress in the head.

I like to ask questions which will give me an idea as to how intense the ache is. Is it disabling or can the person go on working with it? The fact that he or she can easily go to sleep with it, or can get relief with an aspirin tablet will show that the distress isn't very bad.

In many cases it helps greatly to bring out the fact that a woman has several types of headache which she can recognize. She may have an ordinary fatigue or nervous headache, a menstrual headache, a sick headache, a constipation headache, a morning hypertension headache, or a "let-down headache" Saturday noon. Then she may have a "pain" in her head when she has a sinus full of pus, an abscessed tooth, or an inflamed middle ear. I always make particular note of the fact when a patient talks of a *pain in the head* rather than of a headache because this difference in verbiage suggests an important difference in the nature of the disease. "Pains" are more likely to be due to disease which can be located in some part of the head. Occasionally an old man or woman will suffer with an uncontrollable pain in the face which I suspect is due to the thrombosis of some small blood vessel in the brain.

Perhaps the commonest distress about the head is the so-called nervous headache which comes when a person is tired, perhaps as a result of shopping or traveling or sight-seeing. Such a headache can usually be relieved by the taking of a tablet of some drug such as aspirin, phenacetin, acetanilid, antipyrine, or pyramidon. Another type of distress is the menstrual headache, which comes usually at the top of the head or in the nuchal region. Occasionally a menstrual headache is migrainous in nature.

Years ago there was much written about headache due to eye-strain, but I seldom recognize it in my patients. One would expect to be able to recognize it because it should come after excessive use of the eyes. My impression is that this type of headache is not common. Perhaps it has disappeared in the last thirty years since the use of well fitted glasses has become so widespread. It is helpful in many cases to note, by glancing at the patient's glasses, that he is myopic and therefore cannot strain his muscles of accommodation.

A common type of headache is that which is present in the morning when the patient wakes. It is often associated with hypertension, but I

have seen it in persons with a low blood pressure and in some who have been overworking. Sometimes it is due to a mental knitting of the brows over something, and then it disappears promptly when the patient relaxes. The morning headache can sometimes be obviated if the patient will sleep slanting downward with the head end of the bed raised about 18 inches.

NUCHAL HEADACHE

A fairly common type of headache is that which comes in the nuchal region. In its milder forms it seems sometimes to be associated with myositis or fibrositis, and it is sometimes relieved by heat and massage applied to the trapezius muscles. This type of headache can be severe and prostrating in neurotic or psychopathic women who are under great nervous strain, and when vomiting comes with it, the picture will resemble that of migraine. In some cases it is migraine. A distinguishing feature will be the refractoriness of the pain to injections of gynergen or inhalations of oxygen. In the worst cases morphine has to be given.

CONSTANT HEADACHE

A miserable and most refractory type of headache is that which is present all day and every day. Never have I found any organic cause for this type of headache, and never have I found any way of relieving it. Usually it does not respond to the ordinary remedies such as aspirin. Because it occurs generally in rather nervous young persons I suspect there often is some psychic disturbance back of it, but there may also be some congenital peculiarity of the blood vessels of the brain. The ache cannot be severe because the patients can usually go to sleep easily enough.

That this type of headache is due to nervous tension and is probably related to the constant type of abdominal pain which I describe elsewhere in this book is indicated by the way in which the trouble sometimes begins. For instance, a young man told me that his trouble began when he was forced by his father's failure in business to substitute for the long education in law, which he wanted, a shorter course in veterinary medicine which he didn't want. Because he disliked his studies, they came hard to him, but he worked all day and much of the night so as to finish a four-year course in three years. With all the resultant nervous tension, there came insomnia and later headache. After a while the periods of headache ran one into the other until the distress was constant. To me the most interesting point in the story was that in the first year a vacation

would give prompt and complete relief, but later, even two months of rest would not do any good. Apparently, in these cases as in those of constant abdominal pain, pathways to or through the brain eventually become "grooved," and then the ache becomes habitual.

MISCELLANEOUS HEADACHES

There is a so-called "let-down" headache which tends to come at noon on Saturday when the patient stops work. In one case it changed and came on Thursday when I had the patient, a busy dentist, see what would happen when he took that day off.

Occasionally, a severe headache or head pain will be due to a brain tumor. There is also a severe unilateral facial or head pain with a watering eye and stuffy nose which Horton has described, and which can be cured by desensitizing the patient to histamine. In cases of tic douloureux the pain is often so terrible that the patient is soon reduced to skin and bones. It comes in paroxysms when the patient chews food or talks or gets into a draft. It is a disgrace to medicine that this disease is usually not recognized in time so that good teeth can be saved from extraction. The treatment is an alcohol injection, and if this fails, removal of part of the Gasserian ganglion.

More details about headache are to be found in the chapter on migraine.

Chapter XXIX

MIGRAINE AND MIGRAINE EQUIVALENTS

"After violent fatigue, more especially when accompanied with fasting for eight or ten hours, which has often happened to me, I have frequently experienced a sudden failure of sight. The general sight did not appear affected; but when I looked at any particular object it seemed as if something brown, and more or less opaque, was interposed between my eyes and it, so that I saw it indistinctly, or sometimes not at all. Most generally it seemed to be exactly in the middle of the object, while my sight, comprehending all around it, was as distinct and clear as usual; in consequence of which, if I wished to see anything, I was obliged to look on one side. At other times, though much more rarely, the cloud was on one side of the direct line of vision. After it had continued a few moments, the upper or lower edge (I think always the upper) appeared bounded by an edging of light of a zigzag shape, and corruscating nearly at right angles to its length. The corruscation always appeared to be in one eye; but both it and the cloud existed equally whether I looked at an object with one or both eyes open. When I shut both eyes, covering them with my hands so as to exclude all rays of light, the corruscation was still perceptible in the same place, and what had been a semi-opaque cloud appeared lighter than the rest."—C. H. PARRY, 1825.

"The conditions in Migraine resemble those after section of the cervical sympathetic ganglion when there is dilatation of the blood vessels, throbbing of the smaller arteries and elevation of the temperature of the skin. The headache can be stopped instantly by pressing hard on the carotid artery on the affected side. The disease is inherited and idiopathic."—MÖLLENDORF, 1867!

"For every form of stench, noise, of garbage, of reek, of rudeness, and of tumult afflicted his mind as well as his body, and wrought his soul up to the pitch of murderous frenzy."—STEFAN ZWEIG, Erasmus of Rotterdam.

THE GASTRO-ENTEROLOGIST MUST KNOW MIGRAINE WELL NOT ONLY IN ITS typical forms but particularly in those puzzling forms in which the headache is lacking or so mild that the patient fails to mention it. Then, if the physician is not on the watch, he may slip up and allow a woman to have a useless laparotomy for a supposed intestinal obstruction or duodenal

stasis. In other cases he will have a hard time making the diagnosis unless he has the skill to pick out of a puzzling history the migrainous component. Once this is recognized and disentangled from the rest of the story, the nature of the principal disease will become clear. Elsewhere in this book I tell of how one day I almost ordered an unneeded operation when I saw in a woman's record that after the removal of a gallbladder full of stones she had gone on having severe colics. When I took her history over again in great detail I found that really she had never had any pain either before or after her cholecystectomy. Her gallstones had been perfectly silent; what she had had were vomiting spells due to an atypical migraine!

Actually, many times a year I will see a woman who has been suspected of having some serious abdominal disease because of attacks of severe vomiting lasting two or three days. When I find that with these attacks there is terrible nausea with great prostration but no pain, fever, abdominal bloating, or rigidity or tenderness of the abdominal wall, or any sign of intestinal obstruction, I am almost certain what the trouble is. It is helpful to learn that the attacks have been coming for years without bringing the patient to any bad end, and that between spells there is no serious indigestion. If the trouble were due to some lesion producing intermittent intestinal obstruction the patient would probably have gotten into serious trouble long before, and there probably would have been minor attacks of distress in between the big ones.

The essential point in studying these cases is to draw out the fact that the vomiting spell is preceded by headache, perhaps over one eye. This headache is almost certainly migrainous if it is ushered in by a scintillating scotoma. With a scotoma, central vision is blurred for twenty minutes or so, and off to one side a brilliant zigzag line can be seen, shimmering.

Oftentimes, when questioned, the patient will remember that, years before, she had attacks with much headache and little nausea, but later the symptoms changed so that she had much nausea and little headache. Often I am almost certain of my diagnosis of migraine when I draw from the patient the story that, as a girl, she used to come home from school with "bilious vomiting spells." Such spells in children are usually equivalents of migraine. I am even more certain of the diagnosis when I find that during her pregnancies the woman was free from her "spells." It is helpful also to learn that trouble tends to come always when the woman gets tense, upset, angry, worried, or tired, or when she is menstruating, and particularly when she is about to entertain in her home.

It is helpful to learn that her mother or some other near relative suffered with migraine. Sometimes one can get a story of a sort of aura before the attacks, when the person feels perhaps exhilarated, or has a bad breath, or a peculiar drawn look that is recognized by the family as a precursor of trouble.

Usually all I need in order to make the diagnosis is to see the patient in an attack. One look at the dejected, apathetic, and utterly miserable woman, and I know that only migraine or perhaps seasickness could produce such a picture and not kill the victim. Also when I can see the patient in an attack I can often clinch the diagnosis by giving an intramuscular injection of 0.5 c.c. of a solution of ergotamine tartrate, or gynergen. If the woman promptly gets over the spell she almost certainly is suffering from migraine or one of its equivalents. If the gynergen does not work I try the effect of having her breathe pure oxygen for an hour or two. If this does not work there will be even less chance that the distress is migrainous in origin. Migraine should be thought of if all of a barium meal, given while the patient is miserable, remains for hours in the stomach in spite of the fact that the pylorus is open.

I have seen a number of women who, after the menopause, suffered with severe and prostrating attacks of abdominal pain and retching which much resembled the gastric crises of tabes. These attacks were hard to understand, until the story was obtained that before the menopause the woman had suffered with unilateral headaches and nausea. After the "change" the headaches disappeared while the abdominal part of the storm became violent.

One feature that often confuses physicians and causes them to miss the correct diagnosis in these cases is that the woman suffers with several types of headache and does not think to mention this fact. Usually when her attention is called to it she will say, "Oh, yes, I know that." In cases of typical migraine the headache is commonly unilateral and there usually is nausea with an inability to eat during the attack. Usually the ache is of a throbbing type.

The essential fact that we physicians should remember about migraine is that it is a hereditary disease—an entity by itself—which appears now to be due to some sort of storm or explosion either in the brain or in the cervical sympathetic ganglia which regulate the lumen of the external carotid artery and the branches which supply the meninges and perhaps some other parts of the brain. When the nervous storm comes, these arteries open up, and blood starts pounding through them. As one would

expect from this, in some persons the headaches can be stopped instantly by pressing on the external carotid or on the anterior temporal artery. Gynergen stops the pain if and when it causes constriction of these arteries. The abdominal disturbances associated with the headache are due apparently to the passage down the vagus nerves of a sort of storm like that which goes down from the brain in cases of seasickness, Ménière's syndrome, or brain tumor.

As one would expect, then, it is probably useless ever to look for the cause of the trouble in the thorax or the abdomen. In thirty years I have never seen migraine cured by the removal of any abdominal organ, no matter how diseased. Time and again I have seen the attacks continue unchanged after the removal of a diseased gallbladder or appendix or uterus. It would seem useless, then, to keep putting these unfortunate patients through one expensive examination after another; they are not likely to be helped in this way, no matter what is found and removed. I have seen a few persons with migraine greatly helped by the correction of some ocular defect, but, again, the disease was not cured. All that happened was that a nagging source of irritation to the nervous system was removed. Usually the removal of dead teeth and the washing out of sinuses have no influence on the course of the disease. The relief of constipation will sometimes cut down on the number of spells, but, here again, only a source of irritation has been removed, and the disease remains.

Many physicians and laymen think that migraine is associated with disease of the liver; hence the old term "bilious sick headaches." Hence also the tendency of migrainous persons to go to a gastro-enterologist in search of relief. They are concerned over the vomiting of bile, and think this must mean that there is disease in the liver, but actually it means only that the current of peristalsis in the duodenum is reversed so that the waves carry more than the usual amount of bile back into the stomach. Morlock and I showed that in a group of 215 patients with definite disease of the liver there were only half as many suffering with migraine as there were in a control group of 215 persons who, so far as we knew, had a normal liver. More remarkable yet was the fact that nearly all of the migrainous persons who developed serious disease of the liver either lost their headaches or else had less trouble with them as soon as they became jaundiced!

There is no question that there is some relation between the mechanism which produces migraine and the glands of internal secretion which

regulate menstruation and pregnancy. In many women migraine comes only at the beginning of the menstrual period, and in many, the headaches disappear during pregnancy. Often they disappear at the menopause. If they do not go at the menopause I suspect it is because the woman is hurting her brain with painful thoughts and worries.

Because so little that is helpful to a woman with migraine can be learned by examining her body and so much that is important can be learned by studying her psychology and temperament, and inquiring into her life problems and modes of living and working and loving, I feel strongly that we physicians should spend less time in sending her for tests, and much more time in talking over with her her strains and stresses, her worries, and her bad mental habits.

A MIGRAINOUS TEMPERAMENT

The more I see of patients with migraine the more I am impressed with the fact that they all have a certain type of brain and temperament. They are above average in intelligence, and the higher their intelligence and the more sensitive, reactive, tense, keen, and quick they are, the worse is likely to be their migraine. They are so sensitive that usually they are tortured by bright lights, jangling noises, smells, drafts, and many other annoyances which those of us who are less sensitive hardly notice. Often I make the diagnosis the minute a woman comes into my office and shades her eyes with her hand as she looks toward the window.

Perhaps the most common characteristic of migrainous persons is their tenseness. Usually they start getting tense over a job some time before they are to start on it. Many a migrainous woman can hardly entertain because she gets so tense planning the party that by the time the guests arrive she is ill and vomiting and unable to go to the table.

Life is taken seriously by these people, and they feel responsibilities keenly. Often they are perfectionists whose work must be done just so. Often also they want to do it as rapidly as possible. Many a migrainous woman has told me that she was the fastest typist in her office. Some have said, "The others are too slow and I feel like pushing them along." Many of the patients with the worst headaches and the most frequent attacks are a bit psychopathic. They are poorly adjusted to life, and they wear themselves out with worries, silly scruples, fears, or perhaps compulsion ideas. Usually anything out of the usual routine upsets them and tires them. Many suffer with insomnia. Some take upon their shoulders all the worries of a large family. Some even to do the shopping for all their

sisters. Most of them waste nervous energy in many ways. Whenever I see a woman who is having more than two attacks of migraine a week, I am practically certain that she is using her brain wrongly, and that this is her main trouble. Often also she has a nagging problem which she cannot or will not solve, or she is overworking and has become exhausted. Unless I can get her to give her brain a rest I cannot hope to help her much.

To show how important psychic strain is as an exciting cause of migrainous attacks I sometimes tell the story of a kindly old churchman who came in complaining of migraine. He told me that some thirty-six years before, while studying hard and working his way through divinity school, he had suffered much with sick headaches. But later when his struggles to get established were over and he settled down into an easy pastorate, they disappeared, and for many years he was well. Then he was made a bishop, and moved to a big city where he had to take up a heavy burden of work, worry, and annoyance. With this he became weary and tense, and soon his old migraine came back to strike him down day after day. Again and again his physicians looked him over hoping to find the *cause* of the trouble, but they never did. Cleverer than they, he knew what the cause was, and wished devoutly that he could go back to his old parish and his garden with all its peace and ease and contentment. There he felt sure he would be well, but a sense of duty held him to his gruelling job in the metropolis.

I often liken the mechanism which produces migraine to a mousetrap with its trigger. When a woman is tired and jittery, the trigger is set so fine that the least jar will cause the trap to spring. A little annoyance, a poor night's sleep, an auto ride, getting ready for a bridge party at her house, the arrival of the "curse," or the eating of a few chocolates, and there comes a headache. But let the woman get a vacation or a good rest, so that the sense of tension is gone, and then the trigger will be set so firmly that even the strain of a hard menstrual period may not trip it.

Theoretically, the giving of bromides or barbiturates or dilantin should set the trigger more firmly, but actually I have never been able to lengthen the interval between spells by using any such brain-calming drug. Evidently the mechanisms that produce the storms in epilepsy and migraine are different. In the case of migraine there seems to be no substitute for rest and better mental hygiene.

ALLERGY AND OTHER CAUSES

Some enthusiasts have claimed that migraine is just a manifestation of allergy and that they can cure the disease by changing the diet, but I feel sure they are too optimistic. My experience with many a migrainous person has made me feel sure that an allergen is only one of the several agencies that can spring the trap. Many of the patients I see with migraine have already been thoroughly studied and treated by allergists, and many have learned that they can bring on an attack by eating chocolate or one or more foods to which they are sensitive. But, as many a woman says, "Allergy is just one of the things that can bring on an attack. Even when I am on my diet, if I get worried, or angry, or too tired, or if I am exposed to noise or bright lights, or if I menstruate, I can still get an attack." What has impressed me also is the observation that if the woman goes on a long vacation and gets the trigger set firmly, she can eat with impunity foods to which she would ordinarily get an allergic reaction. I have seen several women who were badly allergic lose both their allergic sensitiveness and their migraine when they solved an unhappy marital problem.

Some physicians may answer, "But I know many patients who took a vacation and didn't get any better." Yes, I too have seen many such, but their failure to get well was easily explained by the fact that on their supposed vacation they took along a tense and somewhat psychopathic temperament, together with worries, unhappiness, and perhaps an unloved husband, and so, naturally, they did not get either rest or improvement.

When I see a somewhat psychopathic woman with three attacks of migraine a week I usually have little hope of helping her because it is almost impossible to get her to rest and to use her brain sensibly. Worse yet, so many of these women handicap me by not confessing their mental sins and by lying about the situation at home. I can remember many a woman who told me she was happily married when I found later that she was anything but that, and I can remember others whose relatives had to tell me of tantrums of temper or paroxysms of foolish worry which were the exciting causes of the attacks. So commonly these women tell half truths, as did the one who said she had a sweet adoring husband and a happy home. She failed to tell me that out of pity she had married a cripple and had lived to repent bitterly of her contract. She couldn't bring herself to break his heart by leaving him, but night after night she lay awake wishing she were selfish enough to run away and try to find happiness before she was too old.

One of the difficulties in the way of helping some of the women with migraine is that they are married to a husky, tireless, insensitive, and therefore un-understanding husband who can never sit still, but wants to go out every other night to a theater or night club or to a friend's house, and on the other nights wants to entertain in his own home. The poor wife just can't stand the pace.

In the worst cases of migraine I do not hold out much hope to the woman because even if I were to stop every sick headache with gynergen she still would have a nervous headache and many nervous miseries most of the time. Some of these women are so ill almost every day that it is hard to tell when they have a true migraine and when they haven't.

Some readers may ask, "Well, how about the men? Don't they have migraine too?" Yes, they inherit it as the women do, but usually they are able to stand it better than the women can. In attacks they are not so badly prostrated and they usually keep at work. Fortunately, in them the tendency to headaches often fades out after the age of thirty.

TREATMENT OF MIGRAINE

There are two parts to the treatment of migraine: one that of preventing the attacks or of lengthening the interval between them, and the other that of aborting or lessening the severity of the attacks when they come.

Efforts to Prevent Attacks. As already pointed out, the best and usually the only way of preventing the attacks is by teaching the patient, usually a woman, to get her brain into a less irritable state, either by getting out of some trying or fatiguing environment, or by avoiding worry, or by cutting down on the amount of work done, or in one way or another securing more rest and peace. The patient must learn, if possible, to work under less tension. She must learn better mental hygiene. Oftentimes a husband could cure his wife of migraine by giving her more consideration and affection or by stopping some behavior which upsets her, such as drinking or gambling or going out with other women. Sometimes what is needed is to move a mother-in-law out of the home and into an apartment of her own. Much more information that can be helpful in the treatment of migrainous persons is to be found in the sections on the nervous breakdown and on the treatment of the nervous person.

The migrainous woman must be particularly careful to avoid long automobile trips, long shopping trips, or going out to noisy restaurants,

or to football games, parades, New Year's parties, or any function where there are milling crowds. She tends to wilt so suddenly under fatigue that her husband or escort must constantly be watching for signs of exhaustion, and when they appear he must be ready to take her home quickly.

Keeping a record. In some cases the patient can discover the exciting causes of her attacks by keeping a record to show what events preceded each one. Then she may learn how harmful is the facing of any event out of the ordinary—a journey, a shopping trip, some annoyance or worry, a loss of temper, the coming of menstruation or a cold, the giving of a dinner party, or the eating of some chocolate.

Food sensitiveness. Methods for watching for the foods that may be causing the headaches are described in Chapter XXI.

Cutting down the amount of water. Some persons have told me that they could cut down on the severity of their attacks by limiting their intake of table salt and water.

Drugs. As I have said, in my experience the usual drugs that depress or quiet the brain do not help in preventing the attacks from coming. In cases in which a woman was having three headaches a week I was not able to lower the frequency even to two a week by giving large doses of bromides, phenobarbital or dilantin. Years ago physicians used cannabis indica but I doubt if it helped much.

I myself have not seen benefit accrue from the giving of ovarian or other hormones. I have seen hopeful reports in the literature and I have always felt that a cure for migraine would come if we physicians could ever find the hormone which is responsible for the remarkable relief most of these women get during their pregnancies. Perhaps more efforts should be made to help these women with some of the substances obtained from the blood or urine of pregnant animals. A cure for migraine may come also when someone finds what it is in jaundice which can bring relief so miraculously to migrainous and arthritic patients.

Some physicians are still giving ergotamine tartrate, or gynergen, as a prophylactic, but I think this is a dangerous practice and one that might produce gangrene of the legs. I have seen a few patients who had taken tablets of bellergal or gynergen three times a day for six months or more without getting into trouble; so it is probable that the ones who soon develop alarming symptoms have an idiosyncrasy to the drug. Perhaps in those cases in which an attack of migraine comes only once a month at

the time of the period, the woman could, with safety and advantage, take gynergen as a prophylactic for three or four days. Perhaps then a 1.0 mg. tablet could be taken three times a day.

Some time ago it was noted by E. A. Hines that when hypertension is associated with a tendency to migraine, the giving of potassium thiocyanate will cut down greatly on the incidence of the headaches. The unfortunate feature about this treatment is that the drug is toxic; it injures blood cells, and hence its use must be watched closely, especially at first. Moreover it is desirable that for a while the amount of the drug in the blood be measured at intervals until the right dosage is determined.

A few physicians have tried to help some women with severe migraine by bringing about a premature menopause, but after talking to over fifty women who had been treated in this way and finding that only about one in seven had been helped, I decided never to try the method. Even the normal menopause often fails to help women with migraine.

Eye examination. Patients with headache should always have the eyes examined carefully by a good oculist. I always ask if the glasses being worn were fitted by an oculist after the use of a mydriatic. Occasionally the correction of a bad hyperopia, or astigmatism, or muscle imbalance has helped in restoring a patient to health.

Treatment of the Attack. The first principle in treating an attack of migraine is to begin the minute the first signs appear. Once a sick headache is well under way it is usually harder to stop than if it were, so to speak, nipped in the bud. An important point to remember is that once nausea is present or vomiting has started, there is not much use in giving medicine by mouth because even if it were to stay down, it probably would not be absorbed. Hence, when an attack is well under way medicines must be given either hypodermically or per rectum. Tablets of gynergen can be dissolved under the tongue and absorbed from the mucosa of the mouth, but I do not like this method because usually then the drug acts less well than it does when given hypodermically, and when headaches are coming frequently, the dose of from 2 to 4 mg., taken repeatedly, is large.

As I have said, one of the great difficulties in treating attacks of migraine is that the patient often suffers from several types of headache, and when the pain begins she does not know which type she is going to have. She keeps hoping for too long a time that the ache is going to be an ordinary mild one, and by the time she realizes that it is going to be a bad one, not only is it too late to take medicine by mouth, but it may be hard to stop

the attack even with a hypodermic injection of gynergen. Sometimes the patient can tell that a bad headache is coming by bending over while sitting so as to bring the head between the knees. If the head then begins to throb a real migraine is probably on the way.

Mild cases. In mild cases the patient may get relief if she will immediately take two tablets of aspirin, phenacetin, acetanilid, or antipyrine, or 20 grains of sodium salicylate, or perhaps a dose of some saline laxative or a big cup of black coffee. All some persons need to do is to rest a bit or to lie down in a darkened room and get a nap. I have seen a few patients who get relief by putting the head under a cold shower or by taking 1/100 grain of atropine or 10 mg. of benzedrine. Some are helped by taking a good-sized dose of sodium bromide or bromural.

Gynergen. In bad cases there are only two drugs with which one can hope to abort an attack. One is ergotamine tartrate, or gynergen, which comes in tablets of 1 mg. or ampoules containing either 0.5 or 1.0 c.c. Usually the 0.5 c.c. is enough. It contains 0.25 mg. of the drug. The tablets can be swallowed, or if nausea is present they can be dissolved under the tongue and left to be absorbed there. The usual dose is from two to four tablets, depending on the sensitiveness of the individual. Persons who do not get much effect from taking the drug by mouth must take it hypodermically. I think in about four out of five cases a headache can be stopped with this drug. If gynergen works well, the patient should be given a supply of the drug and a hypodermic syringe and taught how to use it and take care of it. This is particularly necessary when the attacks tend to come at three or four in the morning when it is hard to get a physician.

Some persons object to gynergen and refuse to use it because it produces unpleasant symptoms such as jitteriness, transient numbness and peculiar feelings in the legs, and perhaps vomiting. Fortunately a new type of gynergen has just been developed which appears to be considerably less toxic than the old.

Many physicians are, I feel sure, too fearful of this useful drug. I have little fear of it because I have never seen or heard of any disaster due to its use in the treatment of attacks of headache. I have known many persons who, when I saw them, had been taking the drug three times a week for months without coming to any bad end. So far as I know, the only cases in which the drug injured the blood vessels of the extremities have been those in which large doses had been given several times a day for the relief of jaundice.

Especially in those cases in which gynergen produces unpleasant by-effects, I sometimes have the patient take, along with the hypodermic injection, a rectal suppository containing from $1\frac{1}{2}$ to 3 grains of nembutal. The 3-grain suppository is carried in stock by druggists, and half of one may be enough for a person who is sensitive to drugs. This sedative will quiet the nervous system and it may bring sleep, which is always helpful in stopping an attack. It will tend to quiet the vomiting center. In the very bad cases in which the patient tends to vomit for two or three days until she is dehydrated, a hypodermic injection of sodium amytaf may stop the attack by quieting the vomiting center.

Oxygen. Another substance which sometimes works miraculously in the relief of attacks of migraine is pure oxygen. Unfortunately, it fails to help in a considerable percentage of cases. The oxygen should be inhaled through a B.L.B. nasal mask. To test this treatment the physician can have the patient breathe oxygen from his basal metabolism machine, or he can send her to a hospital, where the anesthetist can give the gas. Usually relief comes only after an hour or two. Sometimes the patient will lose the headache after a while, but later it will come back. Sometimes then another treatment will cause it to go away again for a long time. One advantage of giving oxygen is that it can be used with perfect safety by those unfortunate women who are having migrainous attacks practically every day. It has no unpleasant by-effects, and I have seen cases in which, after it had been used for a while, the attacks stopped coming. In other cases the oxygen worked well for awhile, and then failed to help. When inhalations of oxygen work well, the patient should be supplied with a small tank, a reducing valve, and a mask, which she can keep in her home.

Morphine. Some physicians give morphine in order to relieve the pains of severe migraine, but I think this should seldom be done because it is so easy to give these people a habit, and besides, morphine often stirs up the vomiting center and makes more trouble. In many cases it is a poor treatment for migraine.

Chapter XXX

GASTRITIS

"In febrile diathesis . . . undue excitement by stimulating liquors, over-loading the stomach . . . fear, anger . . . the villous coat becomes sometimes red and dry, at other times pale and moist, and loses its . . . healthy appearance: the secretions become . . . greatly diminished or entirely suppressed. . . . At . . . times, irregular . . . red patches are found on the internal coat. . . . Food taken in this condition of the stomach remains undigested for twenty-four or forty-eight hours."—WILLIAM BEAUMONT, Experiments and Observations on the Gastric Juice.

"After being a diagnosis which might be ignored in daily practice, gastritis is now being recognized as one of the commonest of human diseases. There is, however, as yet no general agreement on this point."—KNUD FABER, Gastritis and Its Consequences, 1935.

FOR YEARS THE TERM GASTRITIS WAS USED LOOSELY AS A DIAGNOSTIC REFUGE whenever the physician couldn't guess what the cause of an indigestion was. Today, with the help of the gastroscope, the diagnosis is made on the basis of definite evidence, but still, in many cases, doubt remains as to the significance of the changes observed. How is one to tell if they have anything to do with the symptoms complained of? Might not the atrophy seen in the lining of a man's stomach be doing him as little harm as is the atrophy of his scalp which has made him bald or the atrophy of his sub-cutaneous tissues which have left him wrinkled?

Another question is, Should one always call an atrophy of the gastric mucosa a gastritis? Histologists report that in many of these cases they cannot find any signs of inflammation such as one would expect from the use of the ending "-itis." According to some observations by Wolf and Wolff on another Alexis St. Martin, even the picture of "hypertrophic gastritis" can be produced by hyperemia induced by emotion.

Every experienced gastro-enterologist knows that many a woman has had a badly diseased gallbladder for years without suffering a single symptom; so why shouldn't she have gastritis or gastric atrophy without

experiencing any distress? Actually there are thousands of persons with atrophic gastritis and achlorhydria who have a good digestion; so how can anyone tell in a given case whether the changes seen through the gastroscope have significance? The young gastroscopist, on seeing signs of gastritis in a woman's stomach, may jump to the conclusion that he has found the explanation for all her indigestion and her many miseries, but his wise old preceptor will not be so sanguine, especially when he sees that the woman is psychoneurotic and constitutionally inadequate. A good point made by Palmer is that in some cases, after treatment has cleared up all the symptoms that were thought to be coming from a gastritis, the physician, on looking in with the gastroscope, will find changes as marked as they ever were. He may, therefore, be no more inclined to blame the patient's troubles on his gastritis than on his prostatitis grade 1. The doctor will remember also that the organ of digestion is the small bowel, and that in perhaps most patients the symptoms of indigestion arise in disturbances of the motility and absorptive powers of this organ. Certainly the gastroenterologist of today must not make the mistake his elders did of ascribing almost all disturbances of digestion to disease in the stomach.

WHEN TO SUSPECT GASTRITIS

The big question is, When should one suspect the presence of gastritis strongly enough to send the patient for a gastroscopic examination? I think one should call in the gastroscopist whenever the symptoms indicate organic disease in the upper part of the digestive tract but the roentgenologist cannot find it. I think of gastritis when there is epigastric pain or distress soon after eating and the patient does not appear to be neurotic or hypersensitive, or when he has vomited blood once or twice without discoverable cause, when, associated with ulcer-like symptoms, there is a low gastric acidity, or when the roentgenologist has noted hypertrophied rugae. I think of gastritis when a man is a heavy drinker, although I know that several investigators have shown that only occasionally does chronic alcoholism produce gastritis, and I think of it when a person who is swallowing much pus from many pyorrhea pockets has a puzzling ulcer-like type of indigestion.

SYMPTOMS

As Schindler has said, the symptoms of gastritis of all types are often vague, and particularly vague is the syndrome of the superficial form of the disease—if it is a disease. It is said that there may be an ulcer-like

epigastric pain or pressure or fullness, nausea, poor appetite, loss of weight, and hemorrhage. Because any degree of acidity may be found, gastric analysis does not help in making the diagnosis. Anacidity after the injection of histamine is found in only one third of the cases, and normal and even high acid values are met with.

With chronic atrophy of the mucosa, there may be no symptoms, or as Schindler says, there may be feelings of epigastric pressure and fullness and a tendency to belching after meals. There may be poor appetite, nausea, vomiting, fatigue, weakness, and nervous irritability, but obviously, such symptoms can easily be due to nervousness alone, and hence it is impossible to say if any of them are produced by the disease which produced atrophy of the mucosa.

In some cases of chronic hypertrophic gastritis Schindler has noted ulcer pain which may or may not be relieved by the taking of food. The patient may have a "weak stomach," "gas," and belching. Night pain may be present, the appetite may fail, and hemorrhages may occur.

With an ulcerative type of gastritis one would, of course, expect to see all the symptoms of an acute ulcer.

TREATMENT

Commonly the making of a diagnosis of gastritis does not give much help to either physician or patient because without any knowledge of the cause of the condition there can be no intelligent treatment. About all we physicians can do is to treat the patient much as if he had an ulcer, and then hope for the best. Fortunately, prolonged treatment along this line has worked well in some cases. I have seen some encouraging results, and some writers have reported a decided improvement in the appearance of the mucosa after much treatment with a smooth diet, food between meals, iron, liver extract, ventriculin, and vitamins.

Especially when the patient has no free hydrochloric acid in the stomach, it may be well to try the effect of liver extract. Hematologists feel that it is not likely to do any good unless the patient has a primary type of anemia. It is questionable if the giving of hydrochloric acid to these patients does much good. It may be tried, but unless the patient's discomforts clear up promptly, its use might as well be stopped. In cases of hypertrophic gastritis with hyperacidity, alkalis may be given. Schindler has seen good results from the use of roentgenotherapy. Daily lavage of the stomach is said to help, in some cases, but it is hard to see why, because the stomach can be cleaned for only a few minutes out of the

twenty-four hours. Some physicians have washed the stomach with a solution of hydrogen peroxide. I like to clean up the mouth when there is much pyorrhea and several foul snags which can keep pouring pus into the stomach. It is customary to ask the patient to stop the use of alcohol, tobacco, and strong condiments.

Chapter XXXI

NERVOUS OR FUNCTIONAL OR PUZZLING TYPES OF DIARRHEA

"In many, perhaps most, cases of diarrhea the cause is utterly unknown."—
RICHARD CABOT.

IN PERHAPS FOUR OUT OF FIVE CASES OF DIARRHEA NO CAUSE CAN BE FOUND FOR the disturbance. Roentgenologic examination of the small and large intestine will fail to show any sign of disease, and with the sigmoidoscope it will be seen that the mucosa of the lower end of the colon is normal. No parasites or unusual bacteria will be found in the stools, and there will be a normal amount of hydrochloric acid in the gastric juice. Usually, in spite of the fact that the diarrhea has been present for months or years, the patient is in a good state of nutrition, or he or she may even be stout. Digestion may appear to be satisfactory, and there may be no bloating or abdominal pain or soreness. A low blood sedimentation rate and a normal hemoglobin reading will suggest that there is no organic disease in the bowel. Actually, in all the cases of regional enteritis and chronic ulcerative colitis that I have seen of late, the blood sedimentation rate has been over 40 mm. in an hour. It would seem therefore that this test can be a very useful one in the study of patients with diarrhea.

HELPFUL POINTS IN THE HISTORY

In most of the cases of apparently functional diarrhea, I suspect as soon as I hear the story that I am not going to find anything to explain the abnormally frequent or abnormally soft bowel movements. My hunch will be based on several points. One is that the patient has had loose bowel movements for months or years without becoming seriously ill or losing much weight. Significant will be the fact that he or she does not have to get up at night to empty the rectum. The story may be that there are a few loose movements in the morning around breakfast time, and then no more for the rest of the day. Perhaps there will be one formed stool and then

two or three loose ones. Important is the fact that the diarrhea has never responded well to any type of diet or medication. Curiously, it is no better when the man is on a smooth diet than when he is eating fresh fruits, vegetables, and salads. It is no better either when large doses of bismuth or kaolin are taken.

A Lifelong Tendency to Loose Bowels. In many cases I find it helpful to learn that the patient has had a tendency to loose bowel movements all his life. The story may be that, from youth onward, he was likely to have an attack of diarrhea whenever he ran into any excitement like speaking in public or starting on a journey. Women of this type can get diarrhea even from fright over a thunderstorm. Often they will admit that in their youth they tended to get diarrhea whenever they were to go out with a beau. Suggestive also will be the statement that the tendency to loose bowels runs in the family and that a brother or sister gets diarrhea when excited.

PANICKY FEAR

I always suspect either a nervous or an allergic type of diarrhea when I hear a patient say that his trouble comes suddenly on occasional days, and that in between, the bowels either move normally or are constipated. Then the keeping of a record may show that each time before the bowels became loose the patient had been panicky or greatly worried over something. It may help to note that at these times the kidneys also are too active. Usually a loose movement follows closely after the excitement or panic, but I have seen cases in which it came the next day. Many times in the last few years I have seen psychopathic or mildly insane persons whose only complaint was attacks of diarrhea, and then I found that these episodes came when the patient was thrown into a panic by the thought that he was losing his mind. I know a man who gets a big loose movement whenever he starts worrying for fear the meal he has just eaten will not digest. With this there will be dizziness and sweating.

ALLERGY

Sudden short attacks of diarrhea can be due also to the eating of some food to which the patient is allergically sensitive. Thus, a man who used sometimes to get short attacks of diarrhea finally discovered that his troubles were all due to the inadvertent taking of some soup which had been enriched by the addition of chicken stock. He knew he was allergic to chicken, and always avoided it, but he had not thought of the pos-

sibility of finding chicken in what looked like a harmless cream soup. Occasionally a constant diarrhea is due to the drinking of milk. Hence it is that in all cases of puzzling diarrhea the patient should go for at least a few days on an elimination type of diet, such as is described in Chapter XXI. The skin may also be tested for sensitiveness to the commoner foods which are eaten every day.

PSYCHIC EFFECTS ON TOP OF ORGANIC DISEASE

Even when it is evident from the story that the attacks of diarrhea are due mainly to psychic upsets, the physician must remember that the patient may still have some organic disease in the bowel. Thus, it is well known today that psychic strain can cause bad flare-ups of a smoldering chronic ulcerative colitis. I remember a college student whose colitis flared up and nearly killed him when he had to take a public examination for his Ph.D. degree. Another patient, a senator, when he had to campaign to hold his seat got a flare-up of an old sprue and died.

Sometimes psychic strain will combine with an allergic irritant to cause diarrhea, as in the case of a lecturer who, when eating quietly at home, can digest fairly well certain foods to which he is allergic, but when at a banquet at which he is the principal speaker, must not touch a one of them because then it will act like a purgative.

PARTICULARLY PUZZLING TYPES OF DIARRHEA

Besides the nervous, allergic, familial, and achlorhydric types of functional diarrhea, there are some unexplained types the cause of which I cannot determine. I can think of infection with a virus which does not make any recognizable change in the wall of the gut, failures in intestinal digestion and absorption, disease in the extrinsic or intrinsic nerves of the gut which leaves it abnormally irritable, a disturbance in water absorption in the colon, a disturbance in the circulation of the gut, or changes in the bacterial flora of the small or large bowel. I see quite a few patients who began to have diarrhea after a cholecystectomy, and this suggests that trouble can be due to a change in the way in which the bile flows into the duodenum.

It has often puzzled me why, when diarrhea follows and seems to be due to some infection or the eating of some spoiled food at a picnic or a fair, it sometimes hangs on for months or years. Occasionally, in such cases, I have worked a cure by having the patient fast for a few days, and then eat nothing but a little meat and rice for a few days more. The

bowel then seemed to get a rest, and perhaps that enabled it to catch up with its work.

DIARRHEA DUE TO THE DRINKING OF UNNEEDED WATER

Occasionally nowadays I see a patient whose diarrhea is due purely to the drinking of large amounts of unneeded water. This water can hurt the bowel in several ways. Some of it may fail to be absorbed, and its presence then will cause wave after wave of peristalsis to go down the bowel. The water will interfere with digestion, partly by diluting the digestive juices and partly by sluicing food out of the stomach and far down the bowel before it can be split and digested by the gastric and pancreatic enzymes.

I remember a woman whose diarrhea had everyone puzzled and baffled until she mentioned her insomnia. When I found that this was due to her rising every hour or two to urinate, I asked how much water she was drinking and found that, on the advice of some health (?) columnist, she was drinking a few quarts a day! The minute she stopped this she was cured. In another case I couldn't guess the cause of a diarrhea until the man's wife noted that it came when he drank large quantities of beer.

DIARRHEA DUE TO DRUGS

In all cases of puzzling diarrhea, and especially that which develops while the patient is in a hospital, the consultant should ask what medicine is being taken, because occasionally nowadays heavy dosage with iron, vitamins or digitalis will have much to do with the trouble.

ACHLORHYDRIC DIARRHEA

The books make much of a type of morning diarrhea which is due to a lack of hydrochloric acid in the stomach, but in my experience this disease is rare. I often see persons with a morning type of diarrhea or intestinal distress which gets them out of bed at daylight, and sometimes they have no acid in the stomach, but rarely does the giving of hydrochloric acid help them. In my experience, when it is going to help it does so immediately. The dose should be at least $\frac{1}{2}$ teaspoonful of the dilute acid. I have never seen it help when the patient had some free acid in his stomach.

In all cases of achlorhydria and indigestion, blood smears should be searched for signs of macrocytosis and hyperchromia, and sometimes a short therapeutic trial should be made with a few injections of liver extract.

AVITAMINOSIS

In all cases of chronic diarrhea the physician must remember that the patient must be somewhat low on his supply of vitamins, because first, he is probably on a reduced diet, and second, the food that he takes is being rushed through the bowel so fast that much of it is not being absorbed. In all such cases it is wise to try for a while the effect of forcing that group of vitamins in the B complex which have been found beneficial in the treatment of pellagra. It must be remembered, however, that the taking of large doses of pure vitamins not infrequently causes cramps and diarrhea.

A HYPERACTIVE SMALL BOWEL SYNDROME

There are some persons with intractable diarrhea in whom the difficulty seems to be an abnormal irritability and hypermotility of the stomach and small bowel. The stomach will empty rapidly, and then the food will shoot through the small bowel. The condition resembles that which I used to see in rabbits after I had cut their sympathetic and vagus nerves. This seemed to take the brakes off the stomach and bowel so that every stimulus started a wave down the gut.

In patients with this condition I have never found any good way of slowing down the intestinal overactivity. Codeine is the drug that is most likely to help.

SPRUCE

Mild symptoms of sprue can be present for years before their true nature is recognized. These early symptoms are often abdominal malaise, with a feeling of fullness and uneasiness after meals. The appetite is likely to be capricious. Sooner or later there comes bloating with the passage of much flatus. Perhaps the patient is gotten out of bed about daylight by the need for passing soft feces and flatus. There may be burning in the esophagus and pharynx, with the regurgitation of rancid material. Later there is likely to be diarrhea with light-colored, frothy, and foul-smelling stools. The patient will lose weight, and will become weak and depressed.

The correct diagnosis should be suspected when the tongue becomes sore and red and perhaps ulcerated, and when anemia appears, with perhaps achlorhydria and a low blood calcium. The effect of giving liver extract should then be tested thoroughly.

ENTERITIS

It is not pleasant for us gastro-enterologists to have to admit that we know little about the pathological physiology of the main organ of diges-

tion and absorption, the small bowel, and that we have almost no clinical methods of studying its functions in sick men and women. Until we get such methods and use them daily I do not see how we can hope to deal intelligently with many of the problems that are constantly being put up to us.

Now that we are able to diagnose gastritis with a fair degree of certainty, in many a case the question will come up: May not the patient have an associated enteritis? I always suspect the presence of chronic enteritis when a patient continues to suffer with indigestion for months after an acute attack of indigestion due apparently to the eating of food contaminated by bacteria. Studies by Childrey, Mann, and Alvarez showed that if the intestine is overburdened or upset on one day, it will not digest well on the next. Under such circumstances a vicious circle can easily be set up, and one that can be broken into only by giving the bowel a rest.

Accordingly, in these cases I ask the patient to fast for a few days, taking perhaps only some fruit juice and beef tea. The bowel then gets a rest, and many a time, with such treatment, I have seen the symptoms disappear. The first foods to be eaten after the end of the fast should be meat, rice, fruit juices, soft boiled egg, and thin toast, which will not leave much residue in the lower end of the ileum. After that a smooth diet should be followed for a few weeks, and then if all symptoms have cleared up, the patient can go back to eating everything.

It is almost certain that in many of those common cases of unexplained diarrhea in which the colon is normal in appearance and there are no parasites or abnormal bacteria to be found in the stools, the cause of the trouble must be some inflammation in or atrophy of the mucosa of the small bowel, or some disturbance in intestinal digestion or absorption, or in the sensitiveness or motility of the gut.

As yet, the roentgenologists have learned to recognize only a few types of enteritis or intestinal atrophy with a change in the contour or mode of filling or motility of the small bowel, changes such as are associated with sprue, some of the avitaminoses, and regional stenosing enteritis.

Years ago, when I was doing my own roentgenologic work, I noticed that in some cases of unexplained diarrhea there was a delay in gastric emptying not due to pyloric stenosis, and reasoning along the lines of the gradient theory, I suspected that in these cases there was back-pressure into the duodenum because the small bowel was somewhat inflamed and overly irritable. I think these observations should be followed up some

day to see what difference there is between the syndromes of the patients with and without the gastric stasis.

One would expect to find an atrophic enteritis in cases of primary hyperchromic anemia, and atrophic changes have been found occasionally by pathologists, but so far as I know, little has been done to demonstrate such changes during the life of the patient. Some work done with the Miller-Abbott intestinal tube on a few patients with primary anemia has shown that the absorption of a few food substances from segments of small bowel was normal, which suggests that there was no great atrophy of the intestinal mucosa.

TREATMENT

An important point in the treatment of diarrhea is that milk is often a poor food to use. In my experience, some 27 per cent of persons tolerate it poorly. Even when it is boiled it can work badly. It makes a bulky stool, which is not desirable, and in some cases it is the original cause of the diarrhea. I prefer to start treatment with foods that leave little residue, such as beef, lamb, rice, toast, and cooked eggs. As soon as possible the patient should be gotten back onto a good maintenance diet. Because persons with chronic diarrhea fail to absorb much of their food and particularly of their vitamins, they should not be left for long on a restricted diet, and actually they should often be given an extra amount of food and especially an extra supply of vitamins. As I have said, however, one must watch to see that the giving of concentrated vitamins does not increase the tendency to diarrhea.

Curiously, some patients with diarrhea are much helped by the taking of one of the gummy laxatives. What happens probably is that the substance takes water out of the intestinal canal and in this way makes the stool more solid. Persons with any type of diarrhea are likely to be helped by rest in bed for a few days. If bismuth is to be used it should be given in teaspoonful or even tablespoonful doses. Kaolin can be used in the same way. I have used tannigen (acetyl tannic acid) or tannalbin (tannin proteinate) in 10 grain doses. Occasionally blackberry cordial will relieve diarrhea. Sometimes one injection of typhoid vaccine will instantly stop a chronic diarrhea.

If a patient is being distressed by tenesmus it may help every so often to wash out the rectum with a small enema of physiologic saline solution. This will give comfort and rest. In acute episodes of diarrhea codeine in

$\frac{1}{2}$ grain doses may cut down on the frequency of the bowel movements and on the distress. In some cases of severe demoralizing diarrhea of nervous origin codeine is very helpful, and I think it can be used for weeks or months. I have never seen anyone habituated to the use of codeine.

Chapter XXXII

ABDOMINAL DISTRESSES ASSOCIATED WITH PELVIC TROUBLES IN WOMEN

"A certain woman which had an issue of blood twelve years had suffered many things of many physicians, and had spent all that she had and was nothing bettered, but rather grew worse."—Mark 1, 25-26.

"Six men give a doctor less to do than one woman."—Spanish proverb.

"All married women are not wives."—Japanese proverb.

AS A GASTRO-ENTEROLOGIST, I SEE EVERY WEEK MANY WOMEN WITH PELVIC disease, pelvic discomfort, or abnormal menstruation, and the question is, How much of their indigestion and abdominal distress is due to the poor pelvic organs and how much to frailness, neurosis, hypersensitiveness, constipation, or a sensitive bowel? Often I feel sure that some of the symptoms are associated with the "hypo-ovarianism," dysmenorrhea, tender, cystic, and prolapsed ovaries, uterine myomas, varicose veins throughout the pelvis, lacerations of the perineum or the pelvic floor, endometriosis, lacerated cervix, sensitive vagina, or old pelvic inflammatory changes. At times some of these conditions seem to nag at the woman's nervous system until she is ill all over.

At any rate, I know that I cannot practice gastro-enterology satisfactorily without frequently turning for help to a good gynecologist. I need his advice, and often also the advice of a conservative gynecologic surgeon who, when he operates, does so not just to remove a myoma or a cystic ovary, but because he feels that there is a good chance that with his work he can make the woman healthier and more comfortable.

One of the first things to do, usually, is to find out if the pain or distress felt in the lower part of the abdomen is worse just before or during menstruation. If it is not, it probably has no connection with disease in the pelvis.

It is important, also, when a woman complains of distress in her pelvis to establish the fact that all the organs there are free and movable, and

that there is no sign of any chronic pelvic inflammatory disease. The absence of such disease is always reassuring. There may be some retroversion of the uterus but this usually means nothing because it is seen so commonly in women who have no pelvic distress.

MYOMAS

Sometimes the uterus is a little enlarged and hard and a small myoma may be felt projecting from it, but unless the woman is flooding so badly that it is hard for her to build her hemoglobin back to normal each month, no operation will be indicated. Operation may be necessary if the myoma is large or if it is growing rapidly. A large myoma seems sometimes to have some toxic effect on a woman, judging by the decided improvement in health which follows its removal. It is unfortunate that so many women today are given the idea that their myoma may turn into cancer. In thirty years of practice I cannot remember seeing many cases in which I thought uterine cancer had come because of the neglect of a myoma. Hence I feel that women with such tumors should not be frightened by being warned against cancer.

Always when there is some option about the removal of a myoma, I like to ask the woman if, for one reason or another, she greatly desires to keep her uterus. If she still hopes for a child or hopes to marry, she may be badly upset mentally by a hysterectomy, and therefore I would prefer to put it off as long as possible. I am particularly anxious to avoid a hysterectomy if the woman who wants to keep her uterus is somewhat psychopathic and inclined to be depressed, and if she weeps when I talk over the problem with her.

Often a woman with a cystocele and rectocele will feel better for having her perineum repaired. Often also she will be happier and more comfortable if a vaginal discharge is cleared up through the elimination of infestation with Trichomonas vaginalis or infection with Monilia. Sometimes a torn or infected cervix needs to be attended to, or a diagnostic curettage must be done because of intermenstrual or postmenopausal spotting.

METHODS OF PELVIC EXAMINATION

In many cases a woman's abdominal wall is so tense or fat, or her pelvis so sensitive, that little can be learned by bimanual examination. Then, perhaps, she could be either spared a useless pelvic operation or else assured of getting the helpful one that she needs if the gynecologist would examine her under intravenous pentothal sodium anesthesia. This

form of anesthesia is now so easily given and it disturbs the patient so little that I think it should be used more often.

THE USE OF ESTROGENS

I regret to say that what I have seen of the effects obtained with the new ovarian hormones has more often discouraged than encouraged me. Evidently the gynecologist still knows so little about the mechanism which produces menstruation that he cannot always straighten it out quickly by injecting hormones. It helps sometimes to estimate the amounts of estrogenic substance and prolan in the urine, and to know that the woman who has been getting large doses of estrogens without benefit never really needed them because her ovaries were making enough. In many cases one cannot hope to learn much from only one measurement made on one day. What one would like to see would be a curve showing what happens throughout a typical cycle of twenty-eight days. Fortunately, research is going forward in this field, and some day we physicians may be able to do more for the girl who menstruates abnormally. What I fear is that there will always be a large group of women whom we cannot help with hormones because in them there is such a large element of psychopathy. This, I think, is *associated with* the disturbance in glandular function rather than *due to it*. Also I have the idea that in many cases the disease that started the trouble is in the hypothalamic part of the brain. I have seen a few cases in which at the beginning of the girl's troubles there apparently had been an unrecognized attack of encephalitis.

Some day we physicians will not be so prone to go on injecting large doses of estrogens, especially when in the case of a particular woman it is doubtful if they ever were needed, and when after a few months it is evident that they are not accomplishing anything curative. When a woman is menstruating regularly the probability is that she has enough estrogenic substance, and then to give her more can only injure her ovaries and perhaps upset her cycle.

A SENSITIVE AND PAINFUL PELVIS IN WOMEN

There are many women who complain of a sore or sensitive or painful pelvis but in whom physical examination shows nothing except an exaggerated sensitiveness to digital exploration and pressure. Many of these women complain of dyspareunia, and they keep doing so all their days and even after they have had the vagina well dilated by the birth of a child. In many cases this dyspareunia seems to be due to some psychic twist. One can recognize that a young woman has it when she begins to

squirm and cry out and thrust away the hand of the gynecologist the minute his finger touches her hymen. Often in these cases there are signs of a psychopathic temperament, or of a lack of normal ovarian function or of normal femininity.

When there is a complaint of painful spots in the vagina, it may help to learn if they are around the introitus or deep in near the cervix. In older women the difficulty may be due to the dry vagina of the menopause, or to a vaginitis. Often the physician will want to know if there is any lack of love for the husband, or if there are other reasons for wishing to avoid intercourse, such as fear of pregnancy.

When no sign of pelvic inflammation is found, when everything in the pelvis is free and movable, and when the woman is abnormally sensitive in other parts of her body, one must suspect that the pelvic tenderness is but part of the general hypersensitivity.

Occasionally a nervous woman of this type will complain of what appear to be mild rectal or vaginal crises, but active reflexes and a negative Wassermann reaction will tend to rule out tabes. In such cases it is possible that there is spasm of smooth muscle in vagina or rectum due to an exaggerated reflex excitability.

THE PAINFUL COCCYX

Quite a few constitutionally inadequate, arthritic, or hypersensitive women complain much about a tender coccyx in spite of the fact that roentgenologic and digital examinations of the region fail to show any decided abnormality. Experience has shown that it is generally best to leave a coccyx of this type alone, because usually its surgical removal fails to give the patient the relief she desires. Only rarely do I see one which projects backward under the skin and which apparently should be removed.

PRURITUS VULVAE

Many of the older women seen by the gastro-enterologist complain much of pruritus vulvae. This is a difficult disease to treat and one that needs often the combined efforts of the gynecologist, who will perhaps clear up vaginal discharges and give estrogens, the dermatologist, who will combat kraurosis and other skin lesions, and the psychiatrist, who will help the patient to adjust to unhappiness or strain in the home. In an occasional case an expert in the field of diabetes may also have to be called in.

Chapter XXXIII

MISCELLANEOUS SYNDROMES

"The stomach is often like the firebox, reporting trouble when the fire is elsewhere in the body."—WILLIAM J. MAYO.

"The stomach is so sensitive an organ that it cannot refrain from weeping when its neighbors are in trouble, and its voice is sometimes so loud as to drown that of the real sufferer."—SIR BERKELEY MOYNIHAN.

INDIGESTION DUE TO COLDS OR "INTESTINAL FLU"

I suspect that at times the toxins of a cold injure the sensitive nervous mechanism in the myenteric plexuses which facilitates the orderly progressive type of intestinal activity, and leave in control the more hardy, non-synaptic nervous mechanism which, as I have shown, causes a systolic, non-progressive type of contraction to appear. Years ago I found also that when a dog gets distemper the gradient of latent period down its small bowel is reversed, owing perhaps to a greater depressant effect of the toxins of the disease on the more sensitive muscle in the orad end of the gut. With this change in the gut the animals lose all appetite, and any food forced on them goes very slowly out of the stomach.

In man, a cold can cause indigestion of a flatulent type, and if the patient has an irritable colon, this is likely to give trouble. In these cases if the patient will eat lightly for a while, perhaps partaking only of low-residue foods, he is likely soon to become comfortable again.

The best medicine I have ever found to block a cold is codeine. As Diehl showed, taken in doses of $\frac{1}{4}$ to $\frac{1}{2}$ grain every four hours after the tickle starts in nose or throat, this will stop perhaps four out of five colds.

INDIGESTION ASSOCIATED WITH HYPERTENSION

I have often wondered why the gastro-enterologist sees so many persons with hypertension. Perhaps it is just because so large a percentage of the population has this disease, but it may be that the patients suffer somewhat more than other persons do from true flatulence and other abdominal

discomforts. In some cases the symptoms come because the heart is laboring a bit under its heavy load, and in many instances, I think a certain amount of uneasiness about health goes with the hypertensive inheritance. In other cases there is uneasiness because of headache, dizziness, heart-consciousness, or a pounding in the ears.

The treatment in these cases should consist usually of reassurance and rest. When there is much headache the physician might try the potassium thiocyanate treatment which will often reduce the pressure. The administration of the drug must be watched and the dose adjusted carefully because the substance is toxic.

The operation of splanchnicotomy should be done only in the case of persons under fifty years of age who have first been given rest and barbiturates to see if their pressure will come down. If it does not come down with these measures, the probability is that the blood vessels are so hardened that they will not open up after the nerves are cut.

INDIGESTION DUE TO A FAILING HEART OR TO
SUPPOSED HEART DISEASE

The gastro-enterologist must always remember the possibility that the middle-aged or elderly man or woman who comes complaining of flatulence, nausea, belching, and attacks of vague indigestion is suffering from a failing heart. Occasionally it has happened to me that shortly after I sent home such a man, without having found any sign of disease, I was distressed to hear of his sudden death from coronary thrombosis. Then I knew that I had failed to recognize the first signs of a failing heart.

In other cases in which death followed soon after I saw the patient I had thought of heart disease and I had had electrocardiograms made, but because the coronary arteries were still patent and no injury had yet been wrought to the heart muscle, the records could not help me to see what the trouble was. Perhaps I would have made the correct diagnosis if I had looked with more alarm on the fact that indigestion had come out of a clear sky and for the first time in an aging person. After failing to find disease in the gallbladder or anywhere else in the digestive tract, I should have thought of the arteries of the heart as the probable source of the trouble.

Perhaps if I had taken a better history I would have learned that the indigestion came usually when the patient exercised after a meal, or that he had, for a while, been getting short of breath on hills and steps that formerly had not bothered him. Perhaps if I had asked more carefully I

could have gotten him to remember that occasionally, while walking, he had to stop and wait a bit because of a distress around his heart.

Sometimes patients of this type who complain of gas have an old hypertension and a heart that is failing a little under the strain. I can remember some who noticed that the gaseous distress was most likely to come on Saturday and Sunday after they had dug in their garden. Many thought that their trouble was due to gas pressing up under the heart when more probably it was the strain on the heart that was giving them a desire to belch.

PSEUDO-ANGINA

There is a type of pseudo-angina which I have met with in women as young as nineteen years of age. My impression is that it is more common in persons who have inherited a tendency to hypertension. When they get tired, they may feel an ache in the region of the heart; an ache which comes at any time, and is not related to exercise or emotion. It may go down the left arm and may so weaken the grasp of the left hand that in extreme cases, things being carried will be dropped. I know two women, mother and daughter, who each had such aches off and on for forty years without developing heart disease.

That the symptom does not have to arise in the heart was suggested by a young woman who had the trouble to a marked degree. Whenever she became very tired she got numb first in the lower extremities, and later, after some weeks, the trouble spread to the left arm.

PSEUDO HEART ATTACKS

I see many persons a year who think they have serious myocardial disease because they have gotten into the habit of waking at night much frightened and with a feeling that something is terribly wrong with the heart. Usually, to overcome this sensation, they sit up and start belching lustily. If the patient is of the type easily alarmed, at the time of the first attack several members of the family and one or two physicians will probably be summoned, and soon there will be great excitement in the house. If the first physician who arrives happens to be a good sensible man who can recognize fright and air-swallowing when he sees them, and knows how to calm the patient and the relatives, all may be well; but if he shakes his head gravely and says, "Heart disease," and next day makes much of some slurrings in the electrocardiogram, then the patient is in for trouble.

I suspect that what happens in these cases is that the patient wakes frightened because of a nightmare or a big heart beat following an extrasystole. Certainly, fright is the important element in producing the symptoms, as shown by the fact that the patient gets better only when well reassured by a cardiologist and convinced that there is nothing wrong with the heart. In these cases I have seen relief come the minute the patient was placed in a hospital where he or she felt safe because of the constant presence of physicians and nurses. One such patient, a nervous widow, was cured only after I got her to move from an isolated house in the country to a city apartment next to the one in which her physician lived. There she didn't get the panicky feelings which she had been getting when she feared that her doctor couldn't get to her bedside quickly enough to save her life if she were suddenly to need him.

Naturally, most of the treatment for persons of this type must consist of reassurance. The physician must never waver in the slightest in his statements that there is no heart disease. The family must be reassured also, so that they will not get alarmed and thereby frighten the patient still further.

DIZZINESS, VERTIGO, AND FEELINGS OF UNCERTAINTY

I feel I must discuss dizziness in this book because so commonly the gastro-enterologist is asked to treat it. The reason is that the patient and often his home physician believe that the trouble is arising in the liver or colon or gallbladder. Actually the experience of years makes me feel that one should not look for the cause of dizziness in the abdomen. I have seen many a woman part with a gallbladder full of stones hoping that that would stop her dizziness, but it didn't. My impression is that usually dizziness and vertigo and feelings of uncertainty arise either in the brain, the eighth nerve, or the inner ear.

Always when a patient is dizzy I ask if the trouble came slowly or suddenly. If it came suddenly, and especially if the patient is past middle age, I suspect that there has been some cardiovascular accident either in the brain or in the ear. If the dizziness came with ear noises and a loss of hearing, it is probable that the disease is in the ear although it may be somewhere along the eighth nerve or its tract in the brain. If the trouble came with a cold and inflammation in the ear, the causative lesion can be fairly well localized. When there is no sign of any disease or disturbance in the ear, and especially when the patient is old, and suddenly fell ill and lost some of his memory and much of his drive and joy in life, the great

probability is that a small blood vessel supplying part of the brain became thrombosed.

I always refer patients with dizziness to an aurist, and sometimes he sends them back to me with a diagnosis of toxic vertigo. Just what this means I have never been able to find out because so rarely in these cases can I find any source of intoxication. Rarely I see dizziness in a case of infectious jaundice. As everyone knows, dizziness and ear noises can appear in persons who have a fever or who have been given large doses of quinine or salicylates. Dizziness and feelings of uncertainty come also with the menopause, and sometimes as an equivalent of migraine. Some persons with a poor heart muscle get dizzy when they are a bit winded.

One must always ask the patient exactly what he means by dizziness because sometimes he describes only a feeling of faintness, giddiness, light-headedness, or uncertainty, or a feeling as if the table at which he is sitting were going to move away from him, or if he has a tendency to orthostatic hypotension he will feel faint and dizzy on suddenly standing up after he has been stooping. Vertigo should mean that the patient feels that either he or the room is moving around.

Dr. Kinsey Simonton tells me that necropsies on patients who have died with Ménière's syndrome have shown such things as thrombosis of an intracranial artery, concretions in the ductus cochlearis, a minute neuroma in the cochlea, or disappearance of the loose connective tissue which normally surrounds the saccus endolymphaticus. Sometimes pressure on the eardrum, disease in the middle ear, closure of the eustachian tube, or otosclerosis will cause dizziness. Dizziness can occur also with cardiovascular-renal disease and with anemia. It is a common symptom in patients with hypertension or hypotension. Some necropsy statistics suggest that dizziness is associated with disease of the gallbladder and perhaps diabetes mellitus and some types of avitaminosis. Vertigo has been reported as due to hypersensitivity to an allergen. It can result also from paralysis of an ocular muscle, from a brain tumor, disseminated sclerosis, a head injury, mastoid disease, or labyrinthitis. Today there is evidence that dizziness can be due to disturbances in the body's use of the sodium ion.

Treatment. In many cases dizziness can be helped by the restriction of the intake of sodium chloride and fluids, and the substitution for the sodium chloride of ammonium chloride or potassium nitrate. The intake of fluid should be restricted to approximately 700 c.c. daily. But little sodium chloride should be taken with the food, and three times daily at

mealtimes, the patient should take six capsules of ammonium chloride containing $7\frac{1}{2}$ grains (0.5 gm.) apiece. The drug is given for periods of three days with a few days of rest in between. Persons who do not tolerate the ammonium chloride can be given potassium nitrate in the same dosage and in the same way.

Approximately 85 per cent of patients so treated are said to be helped. Usually the treatment has to be kept up indefinitely. Harris and Moore have reported good results from the giving of 50 mg. of nicotinic acid five times a day, with 10 mg. of thiamin chloride twice a day and a diet rich in protein and vitamins. Horton gives 2.7 mg. of histamine diphosphate in 250 c.c. of physiologic salt solution, run into a vein slowly over a period of two and a half hours. It may give immediate relief, but this is likely to be temporary. Another drug which is said to be helpful is prostigmine.

I have seen severe vertigo clear up after several years. Usually when it is bad it is refractory to treatment.

DIAPHRAGMATIC HERNIA

A diaphragmatic hernia in which a small portion of the stomach is forced into the thorax through the esophageal hiatus can be found fairly commonly when it is looked for. In some cases the lesion can easily explain the presenting symptoms while in others it is hard to say how much it has to do with them. Sometimes it seems more probable that they are due to nervousness or some form of functional indigestion.

I think particularly of a diaphragmatic hernia when the patient has a vague indigestion with bloating, belching, quick filling after eating, and distress or pain in the epigastrum or lower part of the thorax. In typical cases these distresses are worse when the patient eats a large meal, and particularly when he lies down or leans over to tie his shoes. Occasionally, because of the distress on lying down, the patient has to sleep in a Morris chair. In some cases one can get a history of dysphagia, perhaps with regurgitation and the spitting out of a mucoid fluid. When a segment of colon is caught in the hernia there may be constipation, intestinal gurgling, and generalized abdominal soreness. Sometimes, when the hernia is large, there will be a feeling of oppression in the chest, cough, dyspnea on exertion, smothering sensations, and perhaps chest pain so severe that coronary disease is suspected. In some cases there is no complaint of indigestion, and the roentgenologist may diagnose a thoracic tumor. Sometimes there is a considerable loss of weight.

Often the patient is supposed to have cholecystitis or a duodenal ulcer,

and sometimes, before the correct diagnosis is made, a futile abdominal operation is performed. Occasionally there is hemorrhage from an ulcer in the fundus of the stomach due to the pinching of the tissues in the hiatus, or the patient will have an unexplained anemia because of the oozing of blood from such an ulcer. Pain may be felt in the back to the left of the lower half of the thoracic spine. The symptoms may be more or less constant or they may come in attacks. A hernia of traumatic type must be thought of whenever severe indigestion and abdominal or thoracic pain follow a crushing injury of the chest as in an auto accident.

The diagnosis can easily be missed if the lesion is not looked for. Hence it is that the attending physician should think of a hiatal hernia whenever he hears the story of night distress, dysphagia, and pain, and then he should warn the roentgenologist to put the patient on a horizontal roentgenoscope and have him strain as if at stool.

One great advantage of making the diagnosis is that the patient can then be spared useless operations and treatments for cholecystitis, duodenal ulcer, appendicitis, and other suspected troubles. When the patient is stout, a considerable reduction in weight with a lessening of intra-abdominal pressure may bring relief. When the sac is large and the symptoms are trying, the hernia must be repaired surgically. In some cases relief of symptoms is secured from a phrenicotomy which paralyzes the left leaf of the diaphragm.

PRIMARY OR PERNICIOUS OR HYPERCHROMIC MACROCYTIC ANEMIA

Since sufferers with primary anemia commonly go first to a gastro-enterologist, he must always be on the watch for them. Usually they complain of a vague indigestion, perhaps with loss of appetite, flatulence, a tendency to diarrhea, perhaps a sore tongue or mouth, perhaps some loss of strength and weight, and often numbness and tingling in the legs. Some of these patients are said to have a distaste for meat, and a liking for fats. It must be remembered that cholecystitis is not infrequently met with in patients with primary anemia, and this may account for some of the indigestion and abdominal distress. I always think of a primary anemia when I see gray hair in a person under thirty-five. Analysis of gastric contents may then show a lack of hydrochloric acid; there may be a loss of the vibratory sense in the legs, and the blood smears will show macrocytosis and hyperchromia. A few injections of liver extract will then work a miracle of healing.

I remember a fine-looking woman of thirty who came in one day com-

plaining of indigestion, feelings of fatigue, loss of weight, weakness, and numbness and tingling in her legs. Noticing her white hair, I asked when she had gotten gray and she said the change came when she was in high school. I asked if anyone in the family had pernicious anemia and she said her mother had it. Although examination showed a normal gastric juice and a normal blood picture I suspected that she had inherited a few of the genes that produced her mother's disease, and I therefore suggested to her home physician that he try giving a few injections of liver extract. A few months later he wrote to say that on this treatment the woman had improved spectacularly; she had lost all her symptoms, and had regained her weight.

THE SYNDROME OF DUODENAL ULCER THAT HAS PENETRATED INTO THE PANCREAS

Although an ulcer that has penetrated into the pancreas is certainly not a functional disease, I feel I should mention the syndrome here because so commonly when I see a patient with this extremely painful disease I find that for some time he has been looked on as a "neuro," a malingerer, or a would-be morphine addict. Actually, several of the patients with this disease whom I have seen in the last few years had, for a time, been shut up in a psychopathic hospital because someone was so certain that the trouble was all of psychic origin. Because, in these cases, the clinical picture was so confused and complicated and puzzling, the physicians could hardly be blamed for their mistake in diagnosis. Oftentimes only a consultant who has seen the syndrome several times before can hope to pick out the few essential points in the story and recognize their significance. A mistake is particularly pardonable in those not uncommon cases in which (1) the roentgenologists cannot see any deformity of the duodenal cap, (2) a Sippy treatment does not work well, and (3) abdominal exploration has failed to reveal a lesion.

The essential points in the story are that a man who is now having spells of severe abdominal pain, perhaps with retching, years before suffered with hunger pain which was relieved by the taking of food and soda. The pain he has now is only occasionally relieved by eating or taking some alkali, and at times it is so bad that morphine must be taken.

In these cases the pain is in the epigastrium. Sometimes it comes in attacks which, as Eusterman long ago pointed out, make one think of the gastric crises of tabes. I have seen cases in which the only complaint was of attacks of retching. In the worst cases, one finds an emaciated man, his

spirit broken by suffering, writhing about on his bed, groaning or weeping, and begging for morphine.

A physical finding that may mislead the physicians who see the patient in the attacks is the softness of the abdominal wall, but this softness probably is due to the fact that the disease is behind the peritoneum and does not involve it.

I have often wondered why in so many of these cases the roentgenologists cannot see any deformity of the duodenal cap. Perhaps the hole punched through into the pancreas is too small to be seen, or the wall of the gut is so firmly fastened in the pancreas that it cannot become puckered as it otherwise would be by the scarring which almost always takes place with duodenal ulcer.

It is a joy to make the diagnosis in these cases and to have the surgeon operate, because the results of a partial gastric resection, with a closing off of the pyloric end of the duodenum, are usually so good and so gratifying. Usually the surgeon finds a mass or a thick-walled cavity behind the duodenum, but occasionally he will not feel anything, and then he should make a little opening and look in. Once the disease is recognized, no further attempt should be made at medical treatment because such treatment is usually without effect.

TABAGISM

I remember once being stumped by the problem presented by a man who complained of nausea, occasional vomiting, severe heartburn, loss of appetite, and loss of weight. When roentgenologic and laboratory studies failed to show anything wrong, I could not guess what the trouble was. I couldn't take refuge in calling it a neurosis because the fellow was a big, cheerful farmer. In desperation I turned to his wife and asked her what she thought the cause of the symptoms was. Speaking feelingly, she answered that she knew perfectly well what it was, and it made her sore to see the family money being wasted on needless examinations. The trouble, she said, was that her husband would, at times, chew too much tobacco. The man admitted shamefacedly that doubtless she was right, but he so loved the habit that he had hoped I would find some other cause for his distress.

Obviously, the gastro-enterologist must always keep in mind the possibility that a puzzling type of indigestion is due to too great a use of tobacco. The symptoms may be heartburn, nausea, hunger pain, loss of

appetite, loss of weight, and loss of a sense of well-being. It is remarkable how a heavy smoker will sometimes lose his indigestion and will gain in weight and energy and sense of well-being when he gives up his cigarettes, his cigars, or his pipe.

Raymond Pearl has shown that in many persons heavy smoking markedly shortens life. Those who are tough enough to survive past the age of fifty can perhaps go on smoking heavily into a ripe old age. Some of the illness and premature aging of many women today is doubtless due to their excessive use of tobacco.

HYDRONEPHROSIS, PYELITIS, OR CYSTITIS WITH PUZZLING SYMPTOMS

Especially when dealing with a woman who has pain in a flank and perhaps a little fever, or perhaps a syndrome suggesting chronic appendicitis, the physician must rule out the possibility of a pyelitis. Usually an intravenous urogram with a microscopic study of the urinary sediment and culturing of the urine will be enough to settle the question. Tuberculosis of the kidneys and stones in these organs must also be thought of in making the differential diagnosis.

Many of the nervous women who consult gastro-enterologists because of abdominal discomforts complain also of frequency of urination, perhaps with burning. Usually the urine is perfectly clear and all the urologist can find to explain the trouble is a slight urethritis or trigonitis. Often, then, the experienced clinician who has seen hundreds of these women will suspect that most of the trouble is due to nervousness, and he will fear that no amount of treatment by a urologist will help. Sometimes, in these cases, the giving once or twice a day of 5 to 10 minims of santal oil in a soft capsule will give some relief.

Of course, when the irritation of the bladder is due to a bad cystocele, an operation designed to push the bladder back up into place is likely to work a cure. In other cases when a smoldering infection can be found in the kidney or bladder, one of the new sulfonamide drugs will promptly bring about a miracle of healing.

Every year I see many women who complain of frequent urination which appears to be due mainly to nervousness or worry or indecision. I can remember the first case of this type I saw in practice. A woman of forty came in to say that for a week she had been urinating every half hour. I asked her if she had to get up at night, and when she said "No," I asked her what she was worrying about. It turned out that she had been offered a much better position with higher pay, but she so feared the added

responsibility that she didn't know what to do. As I expected, her urine was like clear water with a very low specific gravity, and she got well when she made up her mind to decline the job. In many persons the urinary tract is, of all the organs of the body, one of the most easily disturbed by psychic strain.

CARCINOMA OF THE PANCREAS WITHOUT JAUNDICE

Because the early symptoms of cancer of the pancreas are often puzzling and easily mistaken for those of an anxiety neurosis, I think it well to review them here. No physician can be blamed for suspecting a neurosis in some of these cases because so often in the early stages of the disease the patient is anxious, depressed, perhaps weepy, and convinced that there is something terribly wrong with him. The man will suffer from unexplainable insomnia, and he may have curious feelings of unreality. Often it is only when jaundice appears that the real nature of the disease becomes apparent.

As Berk (1941) pointed out in his fine review of the subject, the commonest complaint is pain. This is felt usually in the epigastrium, but it tends to radiate through to the middle or lower back, into the right or left hypochondrium, into the anterior part of the thorax, or back into the right scapular region. This pain is usually a dull ache, fairly steady, worse at night, and commonly not influenced by eating. In from 10 to 15 per cent of cases it resembles the pain of ulcer. At times it may become paroxysmal and colicky, and severe enough so the patient has to be given morphine. Unfortunately, there is no one classical syndrome that can be recognized. In many cases the pain is worse when the patient is lying down, and because of this he may be compelled to sit up part of the night. He may get some relief by bending forward to relax the anterior abdominal wall.

Almost all of the patients lose much weight, and they lose it rapidly. With this loss of weight there will probably go a loss of strength and feelings of fatigue and weakness, loss of appetite, and perhaps nausea and vomiting. About 40 per cent of the patients become constipated, and about 10 per cent have diarrhea.

A helpful point when trying to rule out carcinoma of the pancreas as a cause for a *prolonged* nervous breakdown with abdominal pain is that the disease usually progresses so rapidly that the average interval between the first appearance of symptoms and the hospitalization of the patient is six months. After that, death is likely to follow in another six weeks or so.

As every clinician knows, one reason why patients with carcinoma of

the pancreas are often thought for a while to be suffering from a neurosis is that the physical, laboratory, and roentgenological examinations all fail to reveal anything wrong. Only seldom can a mass be felt. Glycosuria and hyperglycemia may be found in perhaps one case in ten, and recent statistics indicate that quite a few of the patients are diabetic for some time before they get a cancer of the pancreas. Anemia is not common. The roentgenologist can sometimes recognize changes in the duodenal shadow which suggest enlargement of the head of the pancreas. The finding of an increase in the amounts of lipase and amylase in the blood is coming to be of considerable help in making the diagnosis. Fatty stools are rarely seen.

HYPERTROPHY OF THE PYLORIC MUSCLE

Occasionally one can see in the roentgenograms of the stomach that the pyloric muscle projects down into the shadow of the duodenal cap. The appearance is so characteristic that, once recognized, it is not likely to be forgotten. Some of the patients complain of distress after eating, with perhaps heartburn and acid stomach, but it is hard to say if the hypertrophy of the pylorus is producing the symptoms. Years ago, in a few of these cases, I had the pyloric antrum resected; usually a myomatous type of hypertrophy was found, but the patients were no better for the removal of the abnormal segment. The experience of my colleagues at the Mayo Clinic with operations on these patients has been about as unsatisfactory as mine has been.

HYPERTHYROIDISM

The physician must ever be on the watch for signs of hyperthyroidism, especially in nervous patients with indigestion and frequent bowel movements, in those who have lost much weight, in those who have suddenly become somewhat psychopathic, and in those whose auricles are fibrillating. Often a physician will rest satisfied, after he has found that the auricles are fibrillating, when, really, he should have gone on to look for the cause of the fibrillation. He should have remembered that, especially in the case of patients who come from the northwestern tier of states, a small toxic goiter is often at the root of the trouble.

Often, as I shake hands with a woman with hyperthyroidism, I will notice that her skin is abnormally warm and moist and that her eyes have a frightened look. Usually she is somewhat restless as she waits in the office; she fidgets about, bats her eyelids frequently, thinks the room is too warm, and admits that she kicks the bedclothes off at night. She sleeps

poorly and perspires much. Often she is strangely weak in the knees, so that going up stairs is difficult. She may have become depressed or unreasonable, or hard to get along with.

Hyperthyroidism can easily be missed in those many cases in which there is no obvious goiter and no exophthalmos. When there is any doubt about a borderline basal metabolic rate two more estimations should be made to see if they are well over + 20 per cent. Then, if doubt remains, one can try the effect of giving 10 drops of Lugol's solution twice a day for a couple of weeks. If, under this treatment, the symptoms should subside and the basal rate fall, one can go ahead and advise that a partial thyroidectomy be done. One should not leave the patient on Lugol's solution indefinitely, because its effect may wear off, and later, when operation must be resorted to, it may be impossible to lower the rate.

HYPOTHYROIDISM

The gastro-enterologist must always be on the watch for hypothyroidism, especially in the stout, tired-looking woman who is entering the menopause. She will feel tired and perhaps depressed, and questioning may bring out such facts as that she has gained weight, she feels cold and mentally slowed-up, she is sleepy during the day, and her skin is dry. I think it helpful to ask the woman if she has lost sexual feeling because so often hypothyroidism wipes such feeling out.

Two difficulties which in these cases often interfere with the making of the correct diagnosis are (1) that these patients seldom mention the typical symptoms of coldness and sleepiness, and (2) that they often are so nervous that one thinks more of hyperthyroidism than of hypothyroidism. I can remember a case in which I would surely have missed the diagnosis if I had not noticed that an apathetic man past middle age was still wearing his winter galoshes on a warm day in May. A little questioning then brought out the typical story of myxedema which he had managed to conceal from every physician consulted in the preceding ten years. All he complained of was being "too tired to even go fishing!"

When thyroid substance is given to these patients they should be kept under observation, and the basal metabolic rate should be estimated every few weeks until a dose is found which will hold the rate about normal.

INDIGESTION DUE TO PROSTATITIS AND URINARY RETENTION

Occasionally a man past middle age will go to a gastro-enterologist with a strange and puzzling story of nausea, vomiting, abdominal pain, and a

falling off in weight. The gradual onset of the trouble can serve to rule out a small stroke, and a roentgenologic examination of the digestive tract will pretty well rule out carcinoma. Actually, in the cases here described the trouble is due to prostatic hypertrophy with a backing up of the urine, and the resultant failure in kidney function.

In order to avoid missing the diagnosis in cases like this I make it a rule to estimate the blood urea in the case of most of the men past forty years of age who come into the office. In the cases of urinary retention, the blood urea will usually be found markedly increased, and the diagnosis will be made when a large amount of residual urine is found. Then the insertion of a retention catheter will, in a week or two, cause all the digestive and abdominal symptoms to disappear.

DUODENAL DIVERTICULA

Diverticula of the duodenum are fairly common. The question is, Have they any significance? My impression is that they have not. In thirty years I have had only one such diverticulum removed surgically, and I did this because there was roentgenologic evidence to show that food stagnated in the pouch. The woman had a troublesome and unexplained diarrhea, and I hoped this was due to irritation of the wall of the duodenum around the diverticulum. Actually, the removal of the pouch had no effect on the woman's health. When, as usually happens, a diverticulum empties promptly, it is hard to see how it could do the possessor any harm.

GIARDIASIS

Occasionally a peculiar syndrome suggesting a nervous breakdown with vague indigestion will clear up spectacularly after the destruction of myriads of *Giardia lamblia* in the duodenum. I remember a nurse who, after being unable to work for over a year, was eager to go back on a case the day after she got rid of the parasites. Hartman and Kyser (1941) have reported a number of such cases in which a puzzling indigestion or abdominal distress was relieved immediately after the taking of a few tablets of atabrine. In their series the symptoms most frequently complained of were diarrhea, pain or distress in the abdomen, asthenia, and nervous irritability. In a few patients there was fever and vomiting.

It is hard to say, in any particular case, how many of the presenting symptoms are due to the giardiasis and how many to nervousness, but when the patient gets well immediately after the destruction of the para-

sites and *then stays well*, one must conclude that giardiasis was probably the cause of the illness.

Atabrine (Winthrop) comes in tablets of $\frac{3}{4}$ grain (0.05 gm.) or $\frac{1}{2}$ grain (0.1 gm.). For adults the dose is 0.1 gm. three times a day. Some physicians have reported that one day's treatment is usually sufficient.

INTERMITTENT INTESTINAL OBSTRUCTION

Occasionally I see a patient who has attacks of bloating, crampy abdominal pain, and nausea, which suggest the presence of intermittent intestinal obstruction. This diagnosis is the more probable if the patient has had one or more operations, and perhaps one which was followed by drainage, some peritonitis, or the breaking open of the wound. In some of these cases it is found later, at operation, that one or more loops of small bowel had become bound firmly at some point, perhaps to the stump of uterus left after a hysterectomy. In other cases the intermittent obstruction is found to have been brought about by an internal hernia or by an adhesion that facilitated the forming of a volvulus.

In attempting to make a diagnosis in these cases the consultant is handicapped because he generally sees the patient in an interval between attacks when there is no discomfort. Naturally, at that time a roentgenologic examination of the bowel is not likely to show anything. Great care must always be taken to exclude the possibility that the attacks of vomiting are due to migraine, cholecystitis, or tantrums of temper. Unfortunately, even when the diagnosis of intermittent obstruction is correct, an exploratory laparotomy in a free interval may fail to show where the gut has been getting pinched. In an acute attack there may be borborygmus, rhythmic pains, and visible peristalsis. Always, then, a scout film should be made since it may show the typical picture of distention of a segment of small bowel.

ANOREXIA NERVOSA

This is fortunately a rare disease. Actually, several different conditions are likely to be called by this name. In a typical case the patient is a young unmarried woman who is brought in, emaciated, and perhaps apathetic and reticent. She has great distaste for food, perhaps some vague indigestion, and usually stoppage of menstruation. Constipation is present and due largely to the fact that not enough food is eaten from which to make a stool.

Rarely is there much complaint about abdominal distress, and often the girl is apathetic over her situation. It is the family who are concerned. Occasionally it will be found that the girl started reducing weight because she was teased about her fatness or because a beau made an unfavorable comment, and then she didn't seem to know how to stop. Oftentimes it is evident that the patient is peculiar, negativistic, or constitutionally inadequate. She may suffer also with a nervous type of regurgitation of food.

It is interesting that a considerable number of these girls were found by Berkman to have had an attack of encephalitis before their anorexia developed. One of my patients, a man with the clinical picture of depression and anorexia, was found at necropsy to have a large cyst in the cerebellum, and another man had a tuberculous psoas abscess. Some of the older women whom I have seen with marked anorexia had apparently suffered thrombosis of a small intracranial artery, and others were suffering from melancholia. They were refusing to eat because they thought the food was poisoned or because "God had told them not to touch it."

The blood pressure is usually low, the pulse rate slow, the gastric acidity low, and the basal metabolic rate decidedly low. In a series of cases studied by Berkman in 1930, the sella turcica, when roentgenographed, was always found to be normal. Several studies have shown that Simmonds' disease is so much rarer than anorexia nervosa that it should not be diagnosed unless the signs are definite. The stoppage of menstruation in girls with anorexia nervosa is due probably not so much to disease of the glands of internal secretion as to inanition and the resultant low level of metabolism. That the low basal rate is not due to disease of the thyroid gland was indicated by Berkman's finding that many of the patients with a rate around — 30 per cent could not stand taking desiccated thyroid, while others who could take it until their basal rate was brought up to normal did not show any decided benefit. Some, however, did seem to be the better for having the rate raised.

Curiously, these emaciated patients, in spite of their highly inadequate intake of food, usually are not very anemic and they do not show signs of any dietary deficiency disease, except perhaps occasionally a nutritional edema.

Treatment. Treatment must consist mainly of efforts to get the patient to eat more and then to hold down what she eats. This is especially necessary in those cases in which the woman regurgitates. In some cases of marked regurgitation I have gotten good results with tube feeding. Always an overly sympathetic family must be removed from the scene,

and hence hospitalization must often be resorted to. Often it is essential that an able cheerful nurse see to it that the patient eats the food given her and then makes an effort to hold it down. It may help to draw out the story of a psychic shock that started the trouble, or of an unhappy love life. Those who are very unhappy usually fail to gain in weight. Many of the patients who recover under hospital treatment relapse when they go home, especially when the husband or a mother-in-law is causing trouble.

BURNING IN THE MOUTH WITHOUT LESIONS

Occasionally an elderly woman will complain of a burning in the mouth for which no local cause can be seen. Curiously, I can remember seeing this trouble only once in a man. Years ago I concluded that the disturbance must be a paresthesia, and I felt the surer of this when I found some women in whom the distress was felt only on one side of the mouth or of the tongue. Later, I noticed that the burning or bad taste came sometimes with other symptoms which indicated that the patient had had one or more small intracranial arterial thromboses such as I have described elsewhere in this book, and today I strongly suspect that this type of distress is due to sclerotic changes in the vessels supplying some nucleus at the base of the brain. In favor of this idea is the fact that I cannot remember any one of these women who ever got better on any treatment. As I point out elsewhere, the symptoms produced by little thromboses in the brain seldom clear up.

In some of these cases the patient will complain of a bitter or nasty or coppery or metallic taste. Sometimes the palate or the gums will become sensitive and the patient will have all her teeth extracted. Usually this proves disastrous because the mouth will then be too sensitive for her ever to stand wearing a plate.

PULMONARY TUBERCULOSIS AND INDIGESTION

In every case of puzzling indigestion, with fatigue, loss of appetite, a little fever, some flatulence, and perhaps pain around the lower edges of the thorax, the physician must think of the possibility that the patient has tuberculosis. I can remember years ago being deceived when I failed to detect a small focus of active tuberculosis in the right lung of a stoutly built man, and thought he must have cholecystitis because he had indigestion with pain in the region of the gallbladder.

Fortunately, active tuberculosis is now seldom met with in the type of patient I see every day, but nevertheless, I think it a good rule in practi-

cally every case, to get a roentgenogram of the chest. This serves to reveal not only an occasional tuberculous focus, but also many a patch of bronchiectasis, many a substernal goiter, many a tumor of the lung, many a metastasis, and many an enlarged or misshapen heart.

A good way of finding out if a man who has no cough or sputum has activity in a questionable pulmonary lesion is to examine stained smears made from material aspirated from the stomach before breakfast. Not infrequently tubercle bacilli can be demonstrated in this way. The new fluorescent staining technic should be used.

THE PATIENT WHOSE TEETH HAVE RECENTLY BEEN EXTRACTED

Every so often I see a man or woman about fifty, complaining of indigestion, nervousness, loss of appetite, and a marked loss of weight. The story usually is that because of arthritis, hypertension, or symptoms suggesting a nervous breakdown, the person went for an overhauling and was found to have a number of dead teeth. Then, at a time when he or she was in poor shape to stand any extra strain, all or most of the teeth were removed. After this the mouth was sore, and later when plates were made they caused so much discomfort that the patient continued to eat little and to lose weight and strength.

Because such things can happen when sensitive persons have all their teeth taken from them, and because so often the disease for which the extractions were done goes on unchanged, I am always loath to put ailing, nervous, and hypersensitive old persons through this type of strain. I am particularly reluctant to order many extractions when a woman is so sensitive, fussy, and prone to gag that I am fairly certain that she will have a hard time getting used to plates.

THE SWISHING STOMACH

A rare type of complaint which I have seen at least twice is that of a swishing stomach. The first person I saw with this peculiarity was a tall, thin, nervous young woman who had a stomach about 18 inches long. She had a narrow thorax, the wall of which extended in front far down over her abdomen. By contracting the muscles in the lower part of the abdomen she was able to swish gastric contents noisily from the lower part of the stomach into the upper. When I told her that it was not a disease but only an accomplishment without great social value, she quit.

ABDOMINAL SYNDROMES THE CAUSE OF WHICH IS UNKNOWN

Still, after thirty-two years of consultant practice, I keep seeing syndromes that I cannot remember having seen before, and which certainly are puzzling. So far as I know they have never been described. Usually the symptoms are fairly severe, and they come in spells which suggest that the cause is some organic disease. I feel the surer of this when the patient is a sturdy, uncomplaining type of man or woman who does not look as if he or she could possibly have a neurosis. In many cases, not only do all the usual tests fail to show any disease, but two or three laparotomies performed in the past failed to do any good. Usually, also, the passage of time has been sufficient to rule out the presence of any serious disease such as cancer or tuberculosis.

All I can do in these cases is to admit to the patient that I cannot make a diagnosis. I like to do this frankly if only so as to keep my mind open. Doubtless something could be learned if, for several years, one could only keep following these patients up with letters to learn what ultimately befell them and what was found. Some of the lesions they might have are mentioned and discussed briefly in the chapters on puzzling types of abdominal pain, migraine equivalents, and chronic dyspepsia.

GIANT URTICARIA

Always in cases of *giant urticaria* I keep inquiring about some personal tragedy or some cause for great mental strain or sorrow or torturing indecision. The more I see of these cases the less time I spend hunting for food allergies and the more time I spend trying to draw out a story of unhappiness or worry. For instance, a woman who came to me because of giant wheals finally admitted that the trouble started when she was torn with indecision over the problem of leaving her husband for a man with whom she had become infatuated. A man broke out with giant hives the day after his boss demoted him and cut his salary in half, and another broke out when he saw that the position of general manager, which had long been promised him, was going to be given to the boss's son. A nurse I know gets an attack of giant urticaria whenever she loses her temper; a girl became covered with big hives when she found that her fiancé was losing interest in her, and so the stories go.

In many cases the physician is likely to miss the essential point because the patient *is* allergic and is somewhat helped by the avoidance of some foods or clothes or furs. In several cases I have seen definite sensitivities

to food or chemicals disappear when the patient became happy again. Evidently, with the quieting down of the sympathetic nervous system, the mechanisms which cause storms in the skin cannot be touched off so easily by external stimuli. One can see this change taking place when, with the coming of mental peace, the patient's dermographia becomes less marked. Elsewhere in this book I tell of a surgeon who, when he is very tired, cannot scrub up without getting marked dermographia and a dermatitis on his hands and arms. When he is rested, soap and disinfectants do not harm him.

Chapter XXXIV

THE TREATMENT OF NERVOUS, PSYCHOPATHIC, POORLY AD- JUSTED, MUCH TROUBLED OR OVERWORKED AND TIRED PERSONS

"The patient must combat the disease along with the physician."—HIPPOCRATES.

"As well do nothing as something to no purpose."—English proverb.

"He is the best physician who knows the worthlessness of the most medicines."—BENJAMIN FRANKLIN, Poor Richard's Almanac.

"When doing good we never know all the good that we do."—French proverb.

"Lighter than air is psychotherapy. Do not practice it consciously. You are training yourself to be a humbug. Have a thorough knowledge of your subject which entitles you to speak with conviction; be sincere in your dealings with your patient so as to gain his confidence; have sincere sympathy . . . which ought to manifest itself without obvious demonstration; be practical in your advice, and talk to the patient and his surrounding in common sense terms and you will have practiced psychotherapy honestly and successfully."—S. J. MELTZER.

"A disease known is half cured."—English proverb.

"Great consolation may grow out of the smallest saying."—Swiss proverb.

"Now abideth diet, drugs, rest, these three, but the greatest of these is rest."
—WETHERED.

"The unwilling alone is unable."—Slovakian proverb.

"The labor we delight in physics pain."—SHAKESPEARE, Macbeth, II, 2.

"A mill without wheat grinds itself."—German proverb.

"Hurry to give a new drug while it is still curing."—Unknown cynic.

"I bless God I never have been in so good plight as to my health . . . these ten years as I am at this day. But I am at a great loss to know whether it be my hare's foote, or taking every morning of a pill of turpentine, or my having left off the wearing of a gowne."—SAMUEL Pepys.

AS I REMARKED IN THE PREFACE, A LARGE PERCENTAGE OF THE PATIENTS SEEN each week by a gastro-enterologist have psychic problems, and are in need of the sort of advice a psychiatrist might give. Many even of those persons who have some organic disease, such as ulcer, cancer, migraine, a trying menopause, an endocrine dysfunction, a dermatitis, cerebral arteriosclerosis, or constitutional inadequacy, need psychiatric help. Many who are sane enough need to be taught how to live more wisely, or to adjust better to life's problems, or to accept some handicap, frustration, or sorrow. Many need to be taught to see all their many troubles as manifestations of one psychoneurosis, and many must be exhorted to stop their hunt for one localized cause for all their distresses and one miraculous drug or operation to cure them. Because these problems assail the clinician every day I am devoting most of this chapter on treatment to a discussion of the care of nervous people.

I shall describe some of the measures that I have found useful in treating the type of nervous or poorly adjusted patient whom I see every day. I shall not go into the problem of treating those psychoneurotic persons who are best taken care of in a sanatorium. I haven't the training or the ability to handle them. I am interested in the patient who, although sane enough in most ways, still has not learned to live as sensibly and easily and happily as he or she should.

TAKING AWAY PLACEBOS

As I have pointed out in previous chapters, the first big obstacle to surmount before one can start using psychotherapy on a patient is usually his refusal to believe that his troubles can all be functional in nature; usually at the close of the examination he is disappointed, perhaps rebellious, and even outraged. Before one can hope to help him one must take away every one of the diagnostic and therapeutic placebos that well-meaning physicians have given him along the way. Unless one does this he will continue to lean on the placebos and will not work to help himself.

As all good psychiatrists have pointed out, if one is sure that the patient's troubles are due to a neurosis, it is foolish, irrational, and harmful to give medicines or a diet. To do this is only to contradict everything that one

has just been saying in regard to the diagnosis. It is bad also because, if given the choice, most patients would rather try to get well with medicine or an operation than by making efforts at self-control. If one gives a hysterical woman a wheel chair why should one expect her to try to walk?

BEGINNING THE TREATMENT

The methods I use in trying to get these persons to accept my negative findings and my diagnosis, and to give up faith in diagnoses of organic disease made elsewhere, are described in several chapters on the handling of the patient. Usually I begin the treatment by admitting that although the negative findings and lack of any signs of cancer or other serious disease have their delightful side, they also have a most disappointing and baffling side. I, too, would have loved to find some localized disease that could have been cut out or cured in a jiffy, but I didn't expect to find it, I didn't find it, and *I see no sense in going on looking for it.*

Often I feel a need for warning the patient not to go ahead and have an abdominal operation performed just because he is desperate, or in a terrible hurry to get well, or unwilling to work hard for his own cure. As the Chinese say, "There is no sense in trying to escape from a flood by hanging onto a tiger's tail."

Oftentimes I suggest to a woman that she give the treatment I have offered her at least one trial, and I remark that when several good physicians have all diagnosed a neurosis and have suggested that a rest be taken, *it is just possible that they might be right* and their advice worth following! I suggest that she follow the advice for awhile, at least, to see if the symptoms clear up. If they do, then there will be no need of searching further for a cure.

Taking a Good History May Be Sufficient Treatment. Much on the treatment of the neuroses is scattered through this book, and much is to be found even in the chapter on the taking of a history. As I explain there, in many a case in which the symptoms are due to a mental shock, worry, overwork, or a distressing situation in home or office, all that is needed to help the patient or to almost cure him is the taking of such a history as will cause him to see how and why he fell ill. Once he sees this, he is likely to reach for his hat and say, "I see now it's up to me. I must either get out of this situation that has made me ill or else stay on and learn to 'take it.'" I remember a priest who had lost 40 pounds in a short time and who had no sign of any organic disease. As soon as I drew from him the story of his long struggle with a desire to get out of a profession

for which he saw he was not fitted, he rose to go and apologized for having wasted my time. As he said, he should have had sense enough to see the close connection between the several flare-ups in his psychic turmoil and the several episodes in his poor health.

Actually, it is one of the curious things about human nature that intelligent men and women so seldom see the causative connection between worry, doubt, unhappiness, or other emotional torment, and their illness. Thus, after contracting an unhappy marriage, a fine woman of unusual ability and clarity of vision failed to see that years of mental torture and loneliness had brought her her sick headaches, her insomnia, and her sore colon. As a result she lived in dread of "colitis" and cancer of the colon, and she allowed a surgeon to perform the usual appendectomy, the only result of which was to throw her into a nervous breakdown. Obviously, of course, one cannot blame her much when one realizes that her physicians did not think to draw out the essential story, and to show her the connection between her unhappiness and her illness.

Another young woman who for months was unable to sleep, did not note the connection between the beginning of her insomnia and the discovery that her fiancé was going out with another girl, and another woman failed so completely to see a connection between the coming of indigestion and the discovery that her husband was a bigamist that she welcomed a surgeon's suggestion that she have her "somewhat slowly emptying" gallbladder removed.

Austen Riggs used to say to a woman when, on leaving Stockbridge, she came to thank him for having cured her, "*Why no; you cured yourself. I only helped you to understand.*"

The Patient Who Is Cured by a Good Examination. In this book there is much on treatment in the chapters on handling the patient and on clearing his mind of fears and worries and adverse suggestions. There is much on treatment also in the chapters on the examination and on what can be observed as this is being made. Often the best and most necessary part of the treatment of a nervous invalid is the careful examination which alone will satisfy him that he hasn't the disease which he has been dreading.

It is significant that after their examination is finished, many of my patients leave for home without even asking for a prescription; once reassured, they are perfectly willing to stand their discomforts. They are like the husky farmer who came to see why he had an ache in his left hypochondrium. When the examination failed to reveal anything, I said to him, "If I were to tell you that you have no ulcer or cancer, and that

there is no reason to expect one in the future, and if I were to assure you that this ache is due only to a little arthritis around your spine which may bother you off and on for years without bringing you to any bad end, what would you do?" His answer delighted me. He said, "I'd say, to hell with it!" And off he went happy and, to all intents and purposes, cured.

In many other cases the patient goes home satisfied and with his mind made up to stand discomforts when he is made to see clearly that his disease is incurable because it is due to the strain of a type of life which he cannot change, or to constitutional frailness, or the ineradicable scars of some disease such as encephalitis, endocarditis, nephritis, or arthritis.

ON THE PATIENT'S NEED FOR KEEPING AWAY FROM DOCTORS

Often as a patient with perhaps a cardiac neurosis is leaving, apparently reassured and cured, I say to him, "See here, your future health depends now on your keeping away from pessimists. If you get any new symptoms and feel you must consult someone, go back to your good doctor at home who knows you well and who evidently does not alarm you needlessly. If you start shopping around, as worrisome men and women like you love to do, some day you will run into a doctor who is somewhat of an alarmist or an enthusiastic therapist; without intending to do so he will give you the impression that you have one foot in the grave, and then you will be good and sick again."

HOW MUCH CAN ONE HOPE TO CHANGE A NERVOUS OR PSYCHOPATHIC PERSON?

It is always a question how much a physician can hope to accomplish in the way of making over a defective personality. Self-reformation can never be easy if only because a tired, defective, or unruly brain must be asked to discipline a tired, defective, or unruly brain. Certainly this cannot be accomplished unless the patient himself strongly desires it and is willing to struggle long and hard and painfully to make himself over. There must be much good stuff in the man if he is going to even attempt the miracle. Usually he would be willing enough to reap the advantages and gain the rewards of self-rehabilitation, but he has no stomach for the long course of self-discipline that must go before. He is like the young man who greatly covets his superior's job and salary but will not spend spare time in preparing himself for the place. I often tell one of these patients that he reminds me of a little cousin of mine who said one day, "*I wish I wanted to do that,*" which expresses the situation perfectly.

Another reason why self-reformation cannot be easy is that the human

mind is resistant to new ideas, and this is especially true of persons who are psychopathic, opinionated, or insistent that they be cured quickly by medicine or an operation. Certainly one of the most foolish and useless things a physician can do is to try to cure a patient against his or her will. In my enthusiastic youth I used sometimes to attempt this, but since it practically always resulted in the coming of bad blood between me and the patient, I finally had the sense to quit. I still try sometimes to sell a nervous or hysterical woman the idea that she could have more fun out of life if she were to make the effort to get well, and sometimes I succeed, but if she does not soon take kindly to the idea, or if I see that her need for her neurosis is great, I promptly let her go.

In some cases much can be done by getting the woman to see what her psychic sins and problems are: why her type of thinking and behavior is hurtful to her, and how large a part of her illness is being produced by her internal and external conflicts. Perhaps, then, even if she decides to keep her bad mental habits, they will not do her so much harm as formerly. Or when she sees how harmful her behavior is she may cut down on it somewhat; she may keep a bad temper under better control, or she may learn to do her work more efficiently and with less wasted effort. Perhaps when she is shown that her childish behavior is estranging her husband or her children she will pull herself together and behave more sensibly, or when she is shown the futility of beating her head against some "stone wall," she will accept a trying situation, and get well.

Every so often I have the joy of hearing from some woman whom I saw a year or two before and who now tells me that she is a new person because of a talk we had. She says she didn't realize then how far she had drifted into bad habits of thinking and working and fearing; she hadn't seen that she was messing up her life, but when she saw what was happening to her, and that it was her fault, she took the needed steps to correct her mistakes, and soon she felt much better.

The sad thing is that so often when a man is shown that some behavior of his is wrecking his wife's health, and sees how easily she could be helped by him, he will not or cannot make the effort to reform. I remember a charming and friendly minister who was devoted to his wife and willing to spend his last nickel on medical care for her, but when she told him that her terrible sick headaches came each week as she worried over his dilatoriness in starting work on his Sunday sermon, he couldn't mend his ways—even though it would have meant improvement in health to her.

It Is Hard to Lift Oneself by One's Bootstraps. As I have already said, it is hard for a man who is mentally ill to cure himself. He must have help from the outside, and such help is not always easy to find. There are not enough good psychiatrists available, and if there were, most nervous patients would not go to them or could not afford to pay them sufficiently for all the many hours of treatment that usually are needed. In the worst cases the patient really belongs in a sanatorium where he could be seen by a psychiatrist almost daily for several months. Naturally, bad habits which have been built up in half a lifetime are not going to be changed in a week. And even when the patient does recover at a sanatorium, after he returns home he may need the help of a good psychiatric social worker who will call occasionally to aid perhaps in improving a bad home situation. Unfortunately, but few of our patients can get this type of help.

Weir Mitchell, I think wisely, advised really fatigued persons not to struggle hard toward self-rehabilitation until they had first gotten some rest and regained some strength.

The Patient Who Is Incurable. I always feel hopeless about a patient and I stop wasting time on him when I see that he is too stupid, opinionated, or psychopathic ever to understand his situation or to want to help himself. I can easily recognize this type of person by the fact that he does not listen to what I am trying to tell him. He keeps breaking in to tell me what other physicians have prescribed for him. If such a person is at all interested in treatment, it is only medicine that he wants. All he wants is to talk about himself. Some of these persons have a low intelligence quotient, and really are morons. They are of the type who, in large cities, spend their days going from one free clinic to another.

The patient who is most likely to be helped is the one who, from the start, sees clearly that if he is to get well, it is *he* who will have to do most of the work. Dr. T. A. Ross had a technic for sorting out the patients who would soon get well and those who wouldn't. He had each one write out every day what he could remember of what the doctor had told him during the interview. When a man came back with a clear and accurate account of most of what had been told him, the prognosis for a speedy recovery was good. But when he couldn't remember much, or if he got that little twisted, or if he felt no interest in it, or was resistant to it because he thought none of it applied to his case, the prognosis was poor.

METHODS OF TREATMENT

Granting that the nervous patient before us is of the type who can be helped, how are we physicians to help him? What instructions are we to give him? Surely we do not want to send him off with the usual injunctions to "snap out of it," "forget it," or "stop worrying." Still less do we want to send him off with a scolding. Physicians have told me of cases in which they worked a cure by "bawling out" a "neuro," but I would rather let the other fellow try it. For one person who can be driven in shame and anger, there are hundreds who can be led with sympathy, understanding, and friendliness.

Advice Must Be Practical. It will not help, either, to tell a factory girl, chained to her machine by the need for supporting herself and perhaps a dependent or two, to take a long rest or go South for the winter. Anyone foolish enough to make such an inane statement should expect to forfeit the respect and liking of the patient. Obviously, advice must be practical and suited to the person's needs, purse, situation in life, and intelligence. Sometimes, as when dealing with some of the psychopaths, constitutional inadequates, misfits, and persons "caught in a trap," I admit that I do not know of anything really curative. It only hurts the patient then to express platitudes or to talk like Pollyanna, who saw something to be glad about in everything. Such talk can only give the impression that one neither sympathizes nor realizes how much the person is suffering. Sometimes I say to a patient, "I could easily say cheering words and give you medicine but soon after you got home you would know that I had deceived you with false hopes."

The Diagnosis Must Be Accepted. I begin usually by trying hard to get the patient to accept the diagnosis of a functional or nervous disturbance. Following the technics described in previous chapters I try to get him to see how nervousness, fatigue, constitutional frailness, and poor nervous heredity can account for all the symptoms, and following the technic given in Chapter IX, I try to take away all the placebos of diagnosis which he has gotten elsewhere. I try to get him to see that I feel no need for searching further for some focus of organic disease.

Life Problems Must Be Studied. Once I have gotten the man to admit that his troubles might all be functional in nature, then I will probably have to show him that he has developed a set of bad psychic habits which now have him under control. He must fight against these habits, and he must try to replace them by better ones. He must work toward better

mental hygiene. I will review with him his problems in office and home to see what can be done either to change a bad environment or to remove a handicap or to lessen the strain on him. In many cases the main problem is to show him how he must hoard his energies and stop wasting them foolishly as he now does.

There Is No Reason to Be Ashamed of Nervousness. Often at the start I like to bolster the man's self-esteem by pointing out, as Riggs used to do, that nervousness and hypersensitiveness are not attributes that one need feel ashamed of. Actually, one might take some pride in them because they are attributes of all fine persons who live beautifully and accomplish much in this world. Properly used and controlled, sensitiveness can do much to help a man to succeed. I believe, as Weir Mitchell and Riggs did, that persons with strong emotions should be urged to keep them under control because outbursts are so disturbing and fatiguing, and the habit of exploding can easily grow on one.

Worrying and Fretting and Trying to Analyze Life. Persons who worry, and especially those who worry unreasonably, must be exhorted to fight this bad habit. They must be shown that much of their unhappiness is due to their needless fear of disease. The self-analytical person must be taught the need for going ahead and doing things rather than sitting and trying to think them out. He must not waste days and nights trying to analyze the meaning of life and its purposes. He must not sit grieving over the handicaps that nature has given him. The thing to do is to jump in and work at the job that is set before him each day.

The patient who wears himself out trying to analyze himself reminds me always of the centipede in Mrs. Wiggin's jingle, who

“was happy quite,
Until the frog, for fun,
Said, ‘Pray, which leg comes after which?’
Which wrought his mind to such a pitch
He lay distracted in a ditch,
Considering *how* to run.”

Nervously fatigued patients can be reminded that when they want to forget their miseries there is no treatment so good as work, and especially work which is interesting or which helps others.

The Physician Should Be More a Friend Than a Judge. I like Riggs' thought that as a physician discusses a patient's problems with him, his attitude should not be that of a censorious judge but rather that of a

friendly, sympathetic elder person who, although he has had much experience with psychologic difficulties, realizes that he still has much to learn, and that he will probably get help to hand on to other sufferers through hearing of the experiences of the patient before him. Such an attitude helps greatly in bolstering the patient's self-esteem, and in getting him to talk frankly.

The Doctor Who Has Suffered Cures Best. Plato said that no physician can cure well unless he has had the disease, and as John Stokes has paraphrased it, a doctor cures best when he can and does let the patient know that he too once suffered with nervousness or insomnia or whatever misery the man has. The fact that he had the disease makes him understand it better, and it forms a bond of sympathy between him and the patient. Thus, when patients learn that after my attack of influenza in 1918, I went through months of misery with a fatigue state and much nervousness they feel much more free to talk to me about their distresses than they otherwise would be. No longer do they fear that I will doubt the reality of their symptoms, or that I will sneer at them. They know that I realize how trying their nervous storms are because I had them. I know also what it is to wonder if the doctors who made an examination and found nothing might have missed some hidden focus of infection that could account for the symptoms. Best of all, the patient says to me, "Well, Doctor, if you came through it and got well, as evidently you did, I'll do it too if you will only tell me what to do."

Hints from T. A. Ross. I have found many helpful ideas in the books by Ross. For instance, it was his custom to point out to a woman that the neurosis which, at the start, apparently had had its useful side in that with it she could control a certain situation or get out of some responsibility, had finally become a nuisance and was costing her more than it was worth. In a kindly way, then, he would talk her into making a big effort to give it up.

Ross felt strongly that no hysterical patient should ever be cured just by hocus-pocus. She should be cured by getting her to see, first, why she fell ill, and, second, how she can now get well through her own efforts. If she is to stay well she must know that recovery came because she realized her mistake and wanted to correct it.

Ross believed that patients with a neurosis feel insecure and would like to be supported by someone, and that often this craving for support is the cause of the illness. This is why so much of the treatment of these patients must consist of teaching them to stand on their own feet.

An important point made by Ross was that when dealing with a person with a neurosis, the doctor may examine all he likes before the diagnosis is made, but once this has been made and the patient has been told that there is nothing wrong with his heart or his colon, *there must be no more examining.* To go back and examine again is only to inject doubt into the patient's mind. He will feel that if the doctor is willing to go back to look again, he cannot have been quite so sure of his negative findings as he said he was.

Ross had a good idea for handling those overly religious or conscientious persons who make themselves ill worrying over evil thoughts they have had. He told them that since good intentions are not rewarded in Heaven, he felt sure evil intentions would not be chalked up against them in Hell!

Ross objected to the habit some physicians have of telling patients that their feelings of exhaustion are due to the fact that their "battery has run down." He thought that in many cases, feelings of exhaustion indicate only that the person is bored with life or with what he is doing. Give a neurotic and chronically tired person an interesting job, and he may instantly lose his sensations of fatigue and work his way back to health. Ross maintained that it is *depressing emotion which produces the sensations of great fatigue* in persons who have no reason to be exhausted. Because of this, he believed that most of these persons feel better when put to work than when left lying in bed. He was against coddling them too much and keeping them from work, and I think he was right.

An argument used by Ross was that a person who is completely exhausted physically can recover and work again after two days of sleep. He said that thousands of English soldiers who, during the long retreat to Dunkirk, got no rest or sleep, recovered their strength and were ready to fight again after sleeping for some thirty-six hours. Here the exhaustion was largely physical, and the period of strain short. I doubt if persons can recover so quickly when their strain has been largely mental, and spread over months or years. Then I think recovery will come only after months of rest and relaxation. If such persons try to work too soon, before they have built up a reserve of nervous strength, they break into a sweat, the brain tightens up, and they feel miserable and shaky.

Helping the Patient by Having Him Read Something in a Book. Because most persons have more respect for the written than the spoken word, it is often helpful to show a doubting patient a book with some statement which applies to his problem. Thus, I keep near my desk a copy of Sir James Mackenzie's book on heart disease with a mark at the place

where he says that the only treatment for extrasystoles is to get used to them. This has cured many a patient far better than any words of mine could have cured him.

Mental Purgation. Fortunately, even when the physician cannot set free and thereby cure a woman whose illness is due to a sort of mental beating against the bars of her cage, he can often help her much by getting her to talk over her secret problem and to put her desires and fears and questions into words. He may be able to lead her out of a maze of muddled thought and to a point where she can see that she has no alternative, but must carry on bravely with her job. Often he can help the constitutionally inadequate person by quoting Trudeau's statement that sometimes, "The conquest of Fate is not by struggling against it, not by trying to escape from it, but by acquiescence." The "asthenic," the woman with an irritable bowel, or the one to whom nature has given some sort of "raw deal" can often be made over into a useful and fairly happy member of society if she can be taught this lesson: to stop looking for a cure, and instead to settle down to be as active and as contented as she can with her handicap.

"Responsibility Hounds." Many a fine woman is worn out nervously because of her willingness to carry the burdens of others in the family. Such a person is usually what Dr. Stokes calls a "responsibility hound," and the relatives, finding this out, get in the habit of dumping on her all of their troubles. Everyone weeps on her shoulder. Often she ends up by assuming responsibility for the support or care of parents or sibs, and by doing so she handicaps herself and perhaps gives up her own chances of happiness. Usually such a person can be given only words of encouragement and appreciation; she deserves great respect because she has put a sense of duty ahead of her own heart's desire.

The Need for Optimism. In handling nervous and worrisome and easily frightened persons the physician who is naturally optimistic, cheerful, and reassuring has a great advantage over the pessimist and the alarmist. Actually, in many cases a person's illness becomes distressing and incapacitating only after he or she has been unfortunate enough to consult a physician who gave a needlessly bad prognosis.

To cheer patients I often tell them of some of the many persons I have known who went on and rounded out a full life after they had been found to have what looked like a fatal disease. For instance, to the person much worried over a benign type of hypertension, I tell Dr. Rowntree's story of Dr. Thayer and the first man in whom, in 1906, he found a pressure over

200 mm. of mercury. Much alarmed, Thayer advised the man to wind up his affairs and prepare for the end. When years passed and the man persisted in staying active and well, the doctor, with a twinkle in his eye, used to tell his students how embarrassing it was for him to keep meeting the fellow as each morning they came out of neighboring houses. A few years ago, shortly before Dr. Thayer died, Rowntree asked him what had happened to this famous patient, and his answer was, "You know, the old scallawag still refuses to get sick or die!"

To men who are terribly frightened because they have suffered a coronary thrombosis, I often tell the story of a friend of mine who, in 1926, at the age of fifty, had a bad attack of angina pectoris. When he recovered with a fair degree of cardiac reserve, I tried to cheer him but without success. But when months passed and he didn't die, he went back to work and lived for another fifteen years. To persons who fear the return of a cancer that has been removed, I recount experiences such as I describe in Chapter X.

One bit of cheer that I often give to the constitutionally inadequate patient or the hypersensitive, neurotic patient is that as he grows older he should suffer less because he will get less sensitive and perhaps more philosophical, more stoical, and more sure of his ability to meet his fellows, and to face easily the problems of life. If he will live sensibly and overcome bad nervous habits, he will find that at the age of fifty he can do many things that he didn't have strength enough to do when he was young.

The Need for Helping a Nervous or Inadequate Patient to Face the Folks at Home. In an occasional case I feel that before I can hope to get a neurotic or constitutionally inadequate woman to get better quickly, I must do something to protect her from outraging the relatives back home. In some cases I believe I ought to do a little hocus-pocus just so as to give the relatives the idea that the woman was cured by a little operation like injecting something under the skin. If I do not do this, and ask her to walk out well after a short talk with me, the family will have their eyes opened, and thereafter they will keep reminding her bitterly of the years they spent in sacrificing for her and paying endless bills for futile operations and long treatments. One can hardly expect her to admit that there never was much wrong with her; to do this would take courage of a high order.

Typical was the case of an intelligent woman with a pain in the pelvis for which no cause could be found. Noting that her husband was a mean,

unpleasant person, I talked to her frankly until she admitted that although at the start her trouble had been useful in that it had protected her somewhat from his brutality, through the years it had grown on her until now it was a nuisance from which she would gladly be free. Unfortunately, before I could stop her, she told the husband that I had found nothing wrong and that she was just about well. The storm of abuse which greeted this announcement naturally brought the pain right back. Later I got her home physician to cure her spectacularly by putting her in the hospital and injecting a few cubic centimeters of a solution of procaine into the hyperesthetic regions. Such a cure by an "operation" carried no stigma, and everyone was pleased with it, including the husband.

A constitutionally inadequate young woman came in one day with the history that her physician had for months been treating her unavailingly for brucellosis. A few days later when I told the girl I could not find any sign of the disease, she went into hysterics. I then drew from her the story that she had married an impecunious college student, much against the wishes of his family. Working in an office all day to support the two of them, doing her housekeeping and worrying over finances at night, she fell ill, and that brought more expense and more worries. She admitted that her attack of hysterics was due to the spasm of fear that went through her when she thought of having to go back to face her husband's relatives without the protection of the diagnosis given her at home. Fortunately, one member of the family happened to be a physician, and when I got him to intercede and to get the couple financial help, the girl got well.

The Place of Religion and Prayer in the Treatment of Neuroses. As Riggs used to say, many nervous people feel terribly insecure and doubtful of their ability to face the world on their own. They feel also that life is distressingly empty, and hence they keep groping for something that will give meaning and value to it and a reason for finishing it out. Naturally, many such people are helped by religion and the confidence and certainty that faith can bring. They feel stronger after they have left their burdens at the foot of the Cross. Others are helped or cured by Christian Science with its denial of all illness and misfortune. The difficulty with this type of cure is that if later the patient should come up against an illness which he cannot deny or ignore, he is left much at sea, and has to begin all over again to build character and self-reliance. Even when the patient is helped by the older forms of religious faith, I am not entirely satisfied because I doubt if anyone in this world is ever safe from neurosis until he has learned to

stand on his own feet, solve his own problems, and face the world and its buffets.

Psychiatrists, psychoanalysts, and physicians of all kinds often run up against the difficulty that the patient starts to lean on *them* and to look to *them* for strength, protection, sympathy, affection, and a reason for going on with life. This danger must be guarded against.

The Psychotherapy That Emanates from a Good Office. The physician is helped in his psychotherapy when he has an attractive office, decorated and furnished in good taste and presided over by an attendant who is pleasant, tactful, dignified, and friendly. She can help by increasing the confidence that the patients feel in the physician and his entourage.

Needless to say, everything about the office should be scrupulously clean. Many women today have exaggerated and even pathologic ideas of what bacteriologic cleanliness should be, and we physicians must do everything we can to keep them from worrying about the possibility of getting infected while we are examining them. I have had many a patient tell me that she left a good physician because she feared that a vaginal speculum used on her had not been properly sterilized. It is important to let patients see that instruments are taken from a sterilizer or sterile package and after use are thrown into a receptacle for dirty material. The physician will do well also to let his patients see him wash his hands before and after touching them.

The Psychotherapy That Emanates from the Physician. Needless to say, much psychotherapeutic power emanates from the demeanor and appearance of the physician. The more nearly he becomes a leader of men and a philosopher who radiates a feeling of strength, knowledge, experience, and command of the situation, the better he will cure nervous patients. His honesty and integrity should show in his face, in his demeanor, and in his speech. Naturally, youth will handicap him somewhat and age and success and fame will help him much.

I was once impressed by hearing John Stokes say that in many cases one cannot get a patient with syphilis to finish his treatment unless along the way one grips him with friendliness, heals his mental hurts with sympathy, and gives him the courage to carry on. Immediately I said to myself, if this be true when one is handling patients with an organic disease for which there is a specific drug therapy, how much more true it must be when one is handling nervous persons in whom one cannot demonstrate organic disease and for whom one cannot prescribe any specific treatment.

The Need for a Long Memory. During the months in which a physician

often has to care for persons with nervous troubles, he needs a long memory so that he can recall details of what they told him and what he told them, of the names of medicines tried, and of whether these helped or didn't help. Records should, of course, be kept, but still a good memory is a wonderful help in keeping the doctor out of trouble and letting his patients see that he remembers them and their complaints. This complements them and gives them comfort. Many a time a woman has told me of leaving a physician when he prescribed a medicine which, a few weeks before, had only made her worse. She felt that a man who could act that way didn't "understand her case."

The Need for Resourcefulness. The physician who hopes to help nervous patients must develop considerable therapeutic resourcefulness. He must learn of things to do to make them more comfortable and to keep them hopeful and busy during the months in which they are resting and allowing Nature to work a cure. With all this he must avoid polypharmacy, he must avoid treatments which will reinforce their idea that the manifold discomforts due to a psychoneurosis can be cured by washing out a sinus or a colon or a kidney, and he must avoid treatments which will give the patient the idea that he or she need not make any effort at self-rehabilitation.

The Psychotherapist Must Be Positive. As I said in the chapter on handling patients, the physician who cannot bring himself to be positive in his statement that a heart or stomach or colon is perfectly sound will never cure a neurosis. If he hedges and straddles and keeps a line of retreat open, the patient is lost. If the doctor is always trying to protect his reputation and to arrange matters so that if his patient should drop dead he can say to the relatives, "Well, you'll remember I warned you about that possibility," he will work no cures. The physician who would cure a cardiac neurosis must come out flat-footedly and say, "There is nothing wrong with this heart"; he must keep saying it, and he must refuse to give digitalis or to make more electrocardiograms. It is far better to make an occasional mistake than to be ineffective as a therapist all of the time.

Traumatic or Compensation Neurosis. Ross once quoted the chief medical examiner for the Compensation Commission of the State of New York as saying that never in his enormous experience had he seen a neurotic patient with litigation pending because of injury or illness get well until he had gotten the money he felt was due him. As Ross said, the only thing to do with these people is to give them their money and let them go. Unfortunately, some will not get well even after they have gotten the

money. The disease will have fastened itself on them, and they will have come to believe fully in it.

WHAT IS THE PATIENT TO DO?

Perhaps the patient, after finally accepting the verdict that he has a neurosis, says, "Well, what am I to do now?" What instruction should then be given him? Obviously, there is much that he should be told. Preferably, I think, it should be in a little book which he could study over and over again. There are several such books on the market which have been helpful to many patients, but I never found one that quite satisfied me. Probably no book written by one physician will ever be entirely satisfactory to others. Everyone is influenced by his own psychic experiences and the experiences of the patients he has seen.

Begin Right Away. The best advice for the patient is to *begin right away* and to begin *by doing and not puzzling and thinking*. Austen Riggs used to say "Begin by facing and tackling your problems and not by trying to get worked up to the point where you can face and tackle them. Do each day's job with all that's in you and without fear that you will fail. If your accomplishment is not as perfect as you would wish, practice until you make it so." Ross once made the statement that in the Royal Air Force it was not the fighters who got neuroses; it was more often the members of the ground crew who worried for fear some oversight on their part might cause a machine to fail and a pilot to lose his life. One can easily see how this could be true.

Live Each Day in Daylight Compartments. One of Osler's greatest maxims was to live life in daylight compartments, worrying little about the morrow, and wasting no regrets over the mistakes and sorrows of the past. So many patients are ill because of the way in which they allow themselves to be bedeviled by the mistakes, griefs, sorrows, or losses of the past. Some even seem to prize and hold fast to their griefs. Some who spend time bemoaning their failure to achieve what they feel they should have achieved in life might perhaps still achieve it if they would only stop fretting, and buckle down to work. The man who couldn't get a college education may still get the equivalent of it, and the man caught in a poor job can lift himself out of it if he has the right combination of guts and brains.

I remember an able woman who, after much argument, admitted that I was probably right in maintaining that her troubles were due to a nervous breakdown and not to the incipient Addison's disease which had been

diagnosed elsewhere. I then drew from her the admission that her illness was due largely to rebellion against her otherwise ideal marriage because it had put an end to her career as a writer. When I found that she lived in an apartment with two efficient maids and no children I almost scolded her. I said that if I, who have to earn my living, see patients all day, edit a journal, keep up with a large literature, and lecture and travel much, still manage to do much writing in minutes snatched at noontimes, between appointments, and on trains, what excuse had she for not putting pen to paper. I got her to admit that if she were only to use her time wisely she would have plenty of it, and then she went home to reorganize her day and to buckle down. Later she wrote that she was happily at work again, and practically well.

Doubtless many other persons now paralyzed with rebellion at a life that seems to have thwarted them at every turn could become useful and healthy members of the community if they would only stop looking for a bed of roses and a sort of Guggenheim Fellowship that would set them free. They should do as a fine woman did, a patient of mine who, when left rather "at sea" and alone after the marriage and departure for a distant city of her only daughter, saved herself from cracking nervously by doing many fine things for her city, and by becoming a tower of strength to all her friends and neighbors whenever they found themselves in trouble. As the ancients long ago discovered, helping others is the best way of keeping from thinking of one's own troubles and becoming distressed by them.

Too Great Tension. Much of the nervous misery that is produced by modern civilized life is brought on by a sense of tension and hurry and having to get something done on time. In my office in San Francisco what wore me down was not the work but the strain of trying each day to adhere fairly closely to my schedule of appointments. Riggs used to caution his patients to do one thing at a time and not to rush with that. Tension and a feeling of pressure to finish things are common among migrainous persons, and account for much of their trouble. Many are bedeviled by the feeling that a job must be gotten out by a certain hour of a certain day.

I like to tell tense persons the story of the colored woman, a centenarian, who, when asked the secret of her longevity, said, "When Ah sets, Ah sets loose-like." I have helped many also with Stewart Edward White's story of the old mountaineer who used to sit and watch him as he built a cabin in the Sierras. One day as White was sawing away violently, the old fellow said, "When you city fellers saw, you just can't

wait to get that log sawed in two; *when I saw I just saws.*" Often this story saves me from getting tense, as when I come home from a trip to find my desk piled high with mail to answer, and the waiting-room full of patients to see. Then I say to my secretary, "We'll just saw until we get caught up." I sometimes think that if a secretary could see in one pile all the letters she is going to write in the next ten years she'd promptly jump out the window. Fortunate are those of us who do not get staggered by visualizing the pile of work to do, but "just saw."

I can get a headache from mentally knitting my brow, and it will go the minute I relax. I have waked with a headache after a nightmare in which I became very tense trying to finish some impossible task, and have stopped the headache in a few minutes by relaxing.

Worry. Since worry is one of the greatest causes of illness and fatigue, every person with a tendency to this bad habit should be exhorted to make a big effort to break himself of it. The advice of our ancestors not to cross a bridge until we come to it is still excellent, as is the Irishman's injunction not to be "barkin y're shins on a stuhl that ain't there." Which means that most of the things we worry about never arrive to bother us.

Unfortunately, there are many persons with chronic illness or a loved one ill or at war, or with finances tottering or irreparably wrecked, or with an unhappy love-life, who can hardly be expected to stop worrying. We physicians who are inclined to say, "Stop worrying and forget it" would worry frantically if placed in a similar position. For persons who must worry I have only sympathy. Because I know of no advice that I can imagine would be helpful to me if I were to be placed under similar circumstances, I give none, and often the patient has thanked me for this forbearance.

I often beg the pathologic worrier to try to mend his or her foolish ways and stop conjuring up causes for alarm, but I suspect I am wasting my time. The woman who worries terribly when her pet pain goes, wondering where it has gone, is, I fear, not quite sane.

The best advice ever given to worriers was that of Austen Riggs. He said that the first thing a would-be worrier should do is to ask himself if the problem that is bothering him so much is his to solve. If it isn't and he cannot do anything about it, then obviously, he shouldn't spend three minutes on it. This was the attitude of the husband of a patient of mine whose only daughter made a most unfortunate marriage. In order to save his health from ruin, he refused to worry or to listen to the

girl's stories of unhappiness and maltreatment. He simply said, "When you have had enough, say so, and I'll get you your divorce. Until then there is nothing I can do." The wife, on the other hand, fretted and stewed and worried day after day until her health was completely broken.

The next question for the worrier is: If it is your problem, can you tackle it and solve it *now*? If it can or should be tackled now, the thing to do is to get busy immediately. If you cannot figure out what the solution is, then find some expert who does know and can advise wisely. Many a woman has worried herself sick over a problem that any wise lawyer or banker or physician could have solved for her in a few minutes. And when advice is obtained from an expert it is better to follow it than to go on worrying. Better often a poor decision than illness due to lack of one. Finally, when a decision is made the subject should be closed, unless perhaps some new information is obtained which requires that the docket be reopened. I love Mayor La Guardia's parting injunction to an aide who has just gotten his decision on something—"And don't bring that back to me!" Many a woman, after asking her husband to make a decision for her, goes on pestering him, trying to get him to change his mind, as she would do.

Indecision. One of the common causes of exhaustion in nervous and worrisome women is their inability to make a decision quickly and then to stick to it. Hence it is that they should start training themselves to make decisions quickly and irrevocably on all unimportant matters where a mistake would have no serious consequences. From this they can go on to making quick decisions on important matters.

Often all a woman needs is to look at the several alternatives open to her to see if she could ever bring herself to accept any one of them. To illustrate: When a research worker was called to a big university and given a laboratory with all the facilities he had been longing for, his wife, although devoted to him and his interests, fretted herself into ill health over the change in location and the loss of old friends. All I had to do to straighten her out was to ask her if she would accept his offer to give up his wonderful opportunity and go back. "Why, no," she said, "I couldn't do such a terribly selfish thing." "Well then," I said, "that's settled, and since you are staying on, do not spend another moment's thought on going back, but start immediately making new friends and finding a place for yourself in your new community." This she did, and promptly she was well.

Similarly, I cure the illness of many a woman who has gotten herself sick trying to make up her mind to leave an unloved husband, simply by getting her to admit that she just can't bring herself to leave him, or at least not at a time when he is in deep trouble or while there are growing children who need a father's care. If she were to leave now she says she would feel for the rest of her days "like a dirty dog." All right, then, she cannot leave; so why go on thinking about it?

I sometimes say to patients, "Where would I be if I couldn't make decisions quickly hour after hour and day after day?" And they are important ones because often health or life itself depends on their correctness. Sometimes, of course, I make an unwise decision, and this distresses me, but it does not break my morale or stop me from going on making quick decisions. I just say to myself that I did the best I knew how, and that is all that could be asked of me. I can only hope to merit the epitaph of the man in Bret Harte's story, who according to the miners had "done his damndest: angels couldn't do no more." As I say to the nervous woman, "If I have learned to make big decisions quickly, why can't you start right now making little ones quickly?"

Internal Friction. So much of fatigue and illness is produced by what I call internal friction, or conflict between two parts of a personality: between perhaps a good, sensible, kindly, and generous nature, and perhaps a mean, unpleasant, mischievous, trouble-making, selfish, or an overly religious, soul-searching, critical, or "crepe-hanging" nature. The warring between two such different personalities, with perhaps the contrition of one over the escapades of the other, or the searchings of conscience over imagined or petty sins, wears the person out. I love Riggs's way of saying to those of his patients who were inclined to go on paralyzing debauches of conscience-searching, "*One must take one's own essential decency for granted.*"

I sometimes say to a soul-searcher, "Who do you think you are anyway, that the Ruler of this limitless universe should be so concerned over your inability to be perfect? Do you know anyone who is perfect?" Actually, this concern over perfection is often only a manifestation of egotism or self-adulation. I know I could never think of myself as so important that the Lord would grieve over my peccadilloes. Another objection I have to soul-searching is that usually while a woman is doing it she gets so tired, nervous, upset, and ill-tempered that husband and children "catch it" and suffer greatly until she comes down from Sinai.

She would do much better to accept her shortcomings and go on as best she can to be a good wife and mother.

If, each day, a man would fight against his feelings of dislike for people, if he would fight down jealousies and see to it that he did not show any sign of those he couldn't help but feel, if he would be less critical of others, if he would be more patient and more tolerant of the inefficiencies and mistakes of others, he would soon find it easier to live with himself because he would like himself better. As David Starr Jordan used to say, we have to live with ourselves most of the time, so why not learn to be good company? A man who is at peace with himself can throw all his energies into his job, while he who is at war with himself is tired out before he begins.

Conflict With Others. Just as a wise person will struggle against the habit of fighting with part of himself, so also he will try to live so as to avoid all unnecessary conflict with others. As I often say to patients, I can usually work from eight in the morning until eight at night without much feeling of fatigue because I like people and it is so easy for me to get along with them, but some day just let someone be so unpleasant that I can't help but get annoyed and upset over his behavior, and evening will find me "all in." This makes me wonder how certain men like headwaiters can stand the day's work when they are constantly snarling at their fellows or bawling them out. Even if they are "hard-boiled" and insensitive to the feelings of others, it would seem as if the turmoil would have to take its toll and leave them weary at the end of the day. Many mothers certainly would be less tired if they would only control themselves and have conflicts with their children only when some big principle is at stake.

I sometimes tell patients of a choleric old millionaire, a patient of mine, who found that every time he had a tantrum of rage his blood pressure went from 170 to 230 mm. This so frightened him that one day he promised me that thereafter he would control himself. He did well until one morning when he started to go into a towering rage at a man who had just tried to cheat him on a deal. Then his secretary heard him roar, "Quick. Get the h---l out of here. *I can't afford to get mad at you.*" How wonderful it would be if more persons would learn that *they can't afford to get angry* the way they are constantly doing.

A kindly, friendly, courteous, tactful, and sensible man can work for months or years without having a harsh word or open conflict with anyone. He will mind his own business and he will not reach out to take

the prerogatives of others, and that will save him endless trouble. He will yield on nonessentials, and will let the other fellow have his way whenever possible. He will not try to run the lives of those about him, and he will grip them to him by kindness, and by expressing appreciation of their work.

Such behavior at home will make life go more easily and smoothly there also. I remember a fine physician's saying once that he had always made love to his children; he wanted their love and he did not see why he should have it unless he earned it. The woman who is always complaining bitterly of the derelictions of her maids would doubtless have a different story to tell if always she were on the watch for ways in which she could be kind to them. If, when the brother or sweetheart of a maid comes home on furlough, the mistress were to suggest to the girl that she take a day off, then she might have devoted service.

Childish Behavior. Most of the troubles of many nervous persons would be over if only they could learn to grow up and behave most of the time in an adult way. It is the spoiled-child, self-centered type of behavior that wrecks most marriages and many business careers. The childish person cannot keep the respect of his wife because he lacks dignity and self-control. Curiously, he shows a remarkable lack of shame about displaying his childishness, and he will persist in a tantrum or a sulk when one would think he must see how much harm it is doing him in the eyes of those about him. Similarly, many a woman goes on acting childishly and without dignity when she should see that she is losing the respect and love of her husband, and is perhaps humiliating him before relatives or friends or business associates. Many such women, when ill, try to lean childishly on others; they cannot or will not stand on their own feet, and they keep demanding sympathy and mothering. Like children, they are easily frightened, they complain excessively, they cry out before they are hurt, and they use their illness as an excuse for doing what they please and for not doing what would cost them a little effort and trouble.

It is questionable how much a childish person can do in the way of growing up, especially after the age of thirty, but that much can be accomplished along this line has been shown by many a woman who, after the loss of a doting husband by death or divorce, had to go to work in an office, and there learned self-control.

A Tendency to Live Over Unhappy Experiences. Not content with the disturbing evils of the moment, most nervous and poorly balanced persons love to talk over and live over again and again the unhappy ex-

periences of the past. Usually they make themselves sick doing this, but they cannot seem to break themselves of the habit. Certainly they should make every effort to do so. It is a sad commentary on the good sense of the average woman that at afternoon bridge the commonest topic of her conversation is the *annoyance* she has experienced with maids, husband, or children.

I often tell patients that *they cannot afford to carry grudges, or maintain hates*. Such things can make them ill and can certainly tire them out. I once saw a man kill himself, inch by inch, simply by thinking of nothing but hatred of a relative who had sued him. Within a year or two he was dead.

Expecting Too Much Attention from Others. Much of the unhappiness of some unpleasant and psychopathic women is due to their feeling that others do not treat them with the consideration due them. They are outraged at the stupidity, lack of courtesy and tact, and lack of real kindness, thoughtfulness, and understanding in others. Put one of them into a hospital and the superintendent of nurses may have to try out a half dozen girls in succession before she finds one whom the woman will not dislike within an hour. Usually, after listening to the woman's grievances, I can see why she felt outraged at each nurse, but also I can see that she herself is no angel; actually, she is a difficult person to deal with or be around because there is no give-and-take in her; she demands perfection. She is highly critical of others, intolerant of the least sign of inefficiency in them, and angered by the least sign of their silent disapprobation.

These are the most difficult women the physician has to deal with, and I have found that I can get along with them only by (1) really liking the nice side they usually have; (2) letting them have anything within reason that they want in the way of tests and treatment; (3) never trying to deceive them or to hide anything from them (they always find out and then never forgive); and (4) promptly letting them go if they show that they do not care to do what I feel they should do.

Many mothers suffer when their children who go to college or get married and move away fail to write regularly and with affection. Many an old Jewish mother becomes wrecked in health when her children stop coming to the weekly reunion on Friday evening. Many persons are hurt by slights, imagined and real, and many are hurt and left hungry because no praise is given or appreciation expressed. The cure for all this is to see that in this busy, selfish world one cannot expect much if any-

thing from others. Certainly no one in a family should ever expect to be the center of all interest and love and devotion. That is the attitude of a spoiled or only child. Appreciation and consideration are delightful when they come, but everyone in this world is busy with his or her own affairs, and few there are who think to stop and give praise and attention to others. Grown children have their own lives to lead, and if they forget to write home, this is natural. Many persons also who love deeply cannot or will not put into words the affection they have for husband or wife, parents, or children.

Fussiness and a Desire for Perfection. A high percentage of the nervous women I see are suffering largely because they are too fussy and particular about things, and are trying too hard to make the world run to suit them. Many are fussing too much at their servants. A husband once described his very trying wife to me as "a woman who was never satisfied with anything." I tell such women that they are paying too big a price for having their own way and making everything run just so. They ought to stop and put health above good housekeeping. Many are "butting their heads against a stone wall," trying, perhaps, to make over a quiet and prosaic but good husband into an articulate, admiring, and observant lover. Many are trying to keep their house and several small children too clean.

As I often say to women, the greatest trouble with them as a sex is their pettiness and their inability usually to differentiate what is really important from what is inconsequential. Few can, like an able business man, strip away non-essentials and get to the heart of a matter. Many a woman gets into annoying conflict with her children and loses their love because she hasn't noted how markedly the mores have changed since she was brought up, and she cannot adjust quickly and gracefully to these changes. She goes on trying to force on the children her old ideas of chaperonage, church-going, non-drinking, non-smoking, and going to bed early, and the conflict wears her down. Many a woman cannot see also that the sort of behavior on her part which would hold her fine husband's love would be immensely more important than such acts as would make a good church member out of him or would make her house appear just so to the members of her bridge club.

Women often tire themselves out squabbling with their children over issues that need never have been raised. So often when a child wants to go somewhere the mother says, "No, you can't go," and then there ensues a long and tiring battle of wills. Usually the only reason the woman said,

"No" was that she feared she would worry while the child was away, which in my opinion is a selfish and inadequate reason for blocking a child's desires and making it unhappy.

So often, also, a mother gets herself into a difficult situation with children or husband when she needn't have done so if she had thought a moment and had asked herself if the issue was so important that she just had to start a row over it. Many a time she "starts something" when she hasn't the strength, the pertinacity, or the right on her side to carry it through. Day after day she will bother her husband over rubbers, a muffler, a hated overcoat, or something that she knows will goad him to fury, and yet, because of her "love" for him, she goes ahead and does it.

Hoarding or Budgeting Energy. Most of what I have written so far is a sermon on the conservation of nervous energy, and the avoidance of frittering it away on silly and useless thoughts, emotions, and acts. Why shouldn't an educated woman be just as able to run her life easily, efficiently, and without useless frictions as her husband is to run his? The answer is, I think, that an efficient, able man handles his business with his brain, while she handles hers with her heart. He tries to get facts and then to act on them dispassionately, quickly, and finally; she bases her actions on prejudices, preconceptions of how the world should run, or on maxims inherited from her mother, some old maid aunts, or her Sunday school teacher. She fails to make up her mind quickly, and when she does make it up she promptly unsettles it again. Husband often has to make up his mind quickly; if he is a good executive, he deals with the big problems and leaves the rest to trusted subordinates; she often loses her servants because she is always telling them what to do.

Husband has no time to think over past losses and misfortunes; she thinks she has. Husband loathes hashing over at night the annoying events of the day; she loves to do so, and often drives him from the house by insisting that he listen to the detailed recital of her woes. Husband expects many of his employees to be inefficient and lazy, and makes allowances for them; she expects her maid to be perfect. Husband knows that many of his customers will be unreasonable; he knows he cannot even remonstrate with them and keep their business, and so, almost without thought or effort he is courteous and affable. She often finds it hard to meet people and to get along with them.

Excessive Shyness. Many persons get tired because of the effort they make just to meet strangers and talk to them. Again, the trouble seems to be due to too much concern over self and the impression that is to be

made on the other. The normal man has no difficulty in meeting people because he has no concern about how he will appear. He knows that his appearance, clothes, speech, and everyday manner will pass muster anywhere, and so he just acts naturally. If he has to talk to a group of people, he will not be worried about himself; he will be interested only in giving them a message. As a youth I used to help myself to avoid self-consciousness by keeping in mind that although I remembered my own social blunders, I rarely remembered the other fellow's. I felt sure the same must be true in his experience, and therefore he wouldn't long remember any gauche thing I might do or say.

I found also that self-consciousness and stage fright can be eradicated by forcing oneself to do over and over again the thing that is hard. Often I did to myself what I used to do to my horse when I compelled him to go back and forth over the piece of paper in the road at which he had shied, until he no longer feared it.

Sometimes one can greatly help the shy, unhappy young woman with a bad inferiority complex by getting her to see that she is not the unattractive, homely, or stupid person a jealous step-mother, sadistic brother, or ignorant husband has convinced her that she is. Give her back confidence in herself, point out her beauties of hair, eyes, face, figure or character, and with the going of some of her shyness will go much of her distress in meeting people and much of her unhappiness. Then may go much of her nervousness, her indigestion, and her insomnia.

Advising the Celibate Woman. I usually ask a nervous, sickly, unmarried woman how it happened that she remained celibate, because often, if I can get her to talk frankly, I can learn much about the causes of her neurosis, and sometimes I can help her in adjusting to her lonely and unsatisfactory way of life. I think usually the somewhat psychopathic or mannish celibate woman is not much concerned over her mode of living and not distressed by the lack of a sexual life. She does not like men well enough or she cannot adjust well enough to life with a man to want to "be bothered." Or she may belong to the large group of women who, while they crave loving attention from an acceptable man, and would love to have him available when needed as an escort and companion, have little if any desire for a sexual life.

The Unhappily Married. The women most upset by the lack of a happy and beautiful and satisfying sexual or love life are those who, around the age of forty, find themselves married to a man who cannot or will not or knows not how to love acceptably. Some of these women can be

much helped by a frank discussion of their problem. Some need to be brought face to face with the fact that they are too firmly bound by convention, religion, economic need, fear of change, or pity for the mate to leave him and reach out for happiness. Only a few will feel that they have paid so fully their debt to the unloved husband that they have a right to strike out on their own. Some will have finished their job of raising children, and then they may be willing to ask for a divorce.

I hate to advise any woman to leave her husband, but every so often I do so when I feel that to go on living with him can do no one any good, and can only lead to further bruising of the woman's spirit and the destruction of her health. In most such cases in which later I was able to learn what had happened, I found that the woman had greatly improved in health, and the husband either had agreed willingly enough to the divorce, or had soon consoled himself with a second wife. I have always respected the fineness of those many couples who, after realizing early in their married life that they were badly mated, stuck it out until the last child was raised, and then separated without rancor or un-friendliness.

Many a nervous and sickly woman must be reminded that she can easily fail to secure happiness in a second marriage just as she failed to get it in her first. Besides, she must remember that she is no bargain on the marriage counter. Often I marvel at the amount of annoyance a husband will take from a wife who is always complaining, often ill, often running up doctors' bills, and who in addition is dowdy and sexually unresponsive. She certainly "has a crust" to complain about lack of satisfaction with her marriage.

The widow who tends to hug her grief needs to be encouraged to stay social and to go out with men again when she has the opportunity.

The Older Person Who Feels Left Behind and Superseded. There are many women who, around the age of fifty, go to pieces because, with children gone and husband absorbed in business, they feel unwanted and unloved and unneeded. Similarly, many a man past middle age, who perhaps fails to get a long-awaited promotion and sees a younger man put in over him, loses his drive and joy in life and develops a neurosis of some kind. Often, of course, there is the possibility that involutional or arteriosclerotic changes are taking place in the brain, and then the prognosis may be bad.

In many such cases the man or woman should be encouraged and told of others who, having found themselves on the shelf, have gone out

and discovered work more satisfying than any they ever had before. A fine matron may find joy in mothering a sorority or in being housekeeper for a hotel, or employment secretary in a college. I know a man who, when he was retired at sixty, started raising mushrooms for the market. He told me he had the time of his life tackling and solving one difficult problem after another.

The Avoidance of Annoyances. Sometimes a patient can help himself by getting rid of certain annoyances which have been harassing him and causing much of his fatigue. For instance, I remember a prominent dentist who specialized in the making of plates. When he came to me he was so tired and nervous he was afraid he would have to give up his work. One day he remarked that his life would be easy and he wouldn't be tired if it weren't for his tribulations with a certain type of fussy woman who is never satisfied with her plates but keeps returning again and again with demands that they be altered. I said to the man, "Why don't you refuse to have anything to do with those women? You surely can recognize them when they come in." He was so impressed with this idea that he promptly cancelled all appointments with his trouble-makers; he told them to go elsewhere, and from that day on, he rapidly regained his health.

On Restraining Temper. Some persons ask if it is better to hold in a bad temper or to blow off steam. I feel with Riggs that it is immensely better to hold in, if only because after a while, self-control will become so natural and habitual that it will become almost effortless. Losing one's temper is a trying and upsetting process; it uses up much energy, and unless one is unusually hard-shelled, insensitive, and callous to the feelings of others, one must be upset at seeing them suffer from the hurts sustained during a tongue-lashing. Besides, a person who lashes out is bound in time to lose the friendship, respect, and love of those about him.

Advice to the Cyclothymic Person. I have an idea that cyclothymic persons might have an easier time in life if they could only learn not to be so strenuous when they are on top of a wave. If only at that time they wouldn't overdo so terribly and get so worn out, perhaps they wouldn't go down so far into the depths when they are at the bottom of a wave. Some have told me that they feel they most overdo when they are feeling well because later they will not be able to do anything.

On Getting Rest. When a patient is tired out from overwork, the most important part of his treatment must be rest, but in many cases it is hard to see how he can get any. Then the physician must go over the situation

with him to see if there is any way in which a breathing-spell can be obtained. Because of economic necessity the man may not be able to get away even for a week, and even if he could rest for a month, this might not be enough. As I was writing this paragraph, a letter arrived from an old patient of mine, an overworked office manager who, three months ago, was forced to stop work because of frequently recurring attacks of migraine. He reports now that the first month was spent in learning to relax and rest; in the second month the headaches began to disappear, and in the third month they ceased. He still needs a little more vacation because if he were to return now without any reserve of strength, he would soon have his headaches back.

I find it helpful to give patients the idea that in order to pull out of the fatigue state in which they are they must so live each day that they can put back something into the bank of health—something of the debt they have run up through months or years of overwork or of unwise or unhappy living.

When a patient is able to take a vacation, he may have to be reminded that whatever he does, it must be something that rests him and brings him back to his job in better shape than when he left. Some persons take vacations of the type that caused the Irishman to remark plaintively, "How happy we'd be if it weren't for our pleasures." Some persons work too hard even at their play. As a friend of one of my patients said one day, "You know, J. B. plays golf as if he had \$100 up on each hole." Many such persons on a vacation will drive from 400 to 600 miles a day in the car, or they will stay up until all hours of the night.

Sometimes a frail, tired schoolteacher will go home, supposedly for a vacation, but actually to take over from a sickly mother and some lazy sisters most of the care of a large house. Obviously, this gives her anything but a rest. When trying to help such a girl I try to find a kindly sister or aunt who will take her in and give her a restful haven for a few months. Other girls can, for a while, return to the parental home, or a brother or other relative will contribute funds to make a rest period possible. The physician should never attempt to advise on such matters until he has canvassed the situation, much as a social service worker does. Fortunately, now, in most big institutions there are social workers who will help with this type of problem.

Substitutes for a Vacation. Often when a vacation is out of the question the person can get much helpful rest on Saturday afternoons and Sundays, especially if he or she will spend the time stretched out on a bed

or couch. Many ambitious and hard-driving men and women can help themselves by withdrawing from executive positions in church, civic, or social organizations. Schoolteachers can perhaps be induced to take home less work at night, and to stop their striving for a higher degree. Occasionally a frail person must give up certain ambitions, and look for some less laborious form of employment.

Business men can often get needed rest if, especially in a slack season, they will for a time reduce the numbers of hours spent in the office. They can go down in the morning, answer the mail, confer with department heads and subordinates, and then go home for the afternoon or out to the club for golf. The wife and mother who because of responsibilities or lack of funds cannot leave home, can often get back her health if, for a few months, she will spend her mornings in bed. She can get up in a wrap and see husband and children off to work and school, and then go back to bed to do there her mending, sewing, writing, and reading. It is remarkable how much this type of resting will do for some tired persons. It is a great help to get a wedge-shaped pillow or a pillow with a firm back such as can be bought in a furniture store. This will make sitting up in bed much more comfortable. A tired mother can sometimes secure for a while the help of a good servant or an old nurse or some relative who will take care of home and children. In some cities there is an agency which will supply responsible women to serve as "proxy parents" while a mother gets away for a vacation.

Talking a Woman into Taking a Rest. Often before a tired mother can be induced to take a rest, the physician must do two things. First, he must combat and overcome her idea that when she rests she is falling down on her job. It must be made clear to her that she cannot be a good, self-controlled, judicious, pleasant, and helpful wife and mother if she is so tired and nervous and irritable that she could jump out of her skin. She is almost certain then to communicate some of her nervousness to the children and thereby to upset them, and then she will have trouble controlling them. As I often say to such a woman: "You who want to be such a good mother and wife—the best in the world—are now being a bad one because you are so irritable. You are in no shape to take care of a child or to get along with a husband. Get rested and again you can be a good mother and wife. To neglect your household duties for a time is the most conscientious thing you can do."

Second, the physician should point out to the mother of several children that her good health is one of her husband's greatest assets, and if she

keeps on breaking herself down with overwork or fretting, the final bill for doctors and hospitals will be much larger than it will be if she stops now and rests and gets strong again.

Often what holds a woman back from resting is her pride; before husband, children, relatives, and friends she does not wish to seem to have failed. Many a time I have seen a frail little woman go on with gritted teeth until she broke down completely, just because she wouldn't give up and let her mother-in-law say or think that, with her poor health, she was a handicap to her husband.

Not only, then, must the physician convince the patient herself that it is her moral duty to rest, but before she can stretch out on the bed and relax and feel at peace, he must talk to the husband and convince him of the need for the rest cure. This usually is not difficult because often, for some time, the husband has been watching anxiously the downward course of his wife's strength and health. He has noted the growing tendency to fatigue, and he has been urging rest. But even then, the husband may have to be warned that if the wife is to get well he must never, for a moment, give her the idea that he thinks she is derelict in her duty or that she is being lazy. Just let him utter one impatient or unkind word, and the physician might as well let the woman get up and go to work again because, if her mind is not at peace, lying in bed will not do her any good.

After the woman is rested and straightened out I often say to her: "The next time you feel like spending \$100 on a medical overhauling which you hope will reveal the 'cause' of your fatigue, stop and spend the money for a maid or a restful trip somewhere with your husband."

Usually when I suggest to a nervous woman that what she needs is a month or two of mornings in bed, her answer is, "Why, I couldn't stay in bed even one day; I would be so restless I would go crazy." My answer is that this very statement gives her away and shows how badly she needs a rest. She is living on her nerves, and using work to help her to keep going. She is like the man who, on the verge of delirium tremens, takes another drink because that is the best thing he knows of to steady him.

At times, of course, work is a steady influence and the only thing that will take the patient's thoughts out of painful and self-destructive channels. Many a woman, when tortured by thought, will find relief in doing the washing or in cleaning house. Too much of such work, however, is bad, and it may throw the woman into a vicious circle from which

she can be rescued only with difficulty. I always beg women in this state to stop and take things easy before they get into such a nervous state that sedatives and soporifics will no longer work properly.

Some of the patients who so greatly need a rest cure remind me of a cart horse which, after slipping and falling on a wet pavement, kicks and struggles until it is cut up and perhaps strangled by the harness. If it would only have trusted to its driver and lain still for a few minutes it could have been unharnessed and helped to its feet. Similarly, there is many a tired woman who, instead of staying in bed mornings for a few months to see what rest would do for her, keeps going from one physician to another and talking herself into one operation after another until she is completely worn out. As some of these women have said to me: they couldn't be bothered with a long rest cure; what they wanted was a royal road to recovery.

A Rest Cure in a Sanatorium. A Weir Mitchell type of rest cure in a sanatorium, with or without overfeeding, is often a most helpful therapeutic measure if the patient can afford it without worrying about the expense. Unfortunately, it is usually beyond the financial reach of those who need it most. Unless a good sanatorium is available, well run, and in a quiet location, the rest cure will have to be carried out in the home of a devoted relative. It seldom goes well in the patient's home because there she is likely to be kept on edge by many annoyances. The doorbell or telephone rings and is not promptly answered; a child sets up a howl or comes running with accusations against brother or sister, a servant comes for instructions, and so it goes all day.

Unfortunately, the ordinary hospital is seldom a suitable place for a rest cure. Those in charge usually ignore the fact that the sick and nervous are slow in getting to sleep and are helped most by the rest that they get between three and eight in the morning. Instead of allowing a tired woman to get such a rest, the nurses wake her at five to wash her face or take her temperature, and they start disturbing her again at six so that everything can be done and out of the way for medical rounds at eight. This may be fine for the visiting physicians and the chef but it is hard on those patients who sleep poorly. I remember a hospital superintendent who would never listen when I talked to him of these things. He said I just didn't understand the problems involved. Then one day he fell ill and was put in one of his own rooms. When the nurse woke him at five to wash his face he blasted her with profanity, and when at six someone started running the floor polisher in the hall he lost all con-

trol over himself and threatened the fellow with dismissal and serious bodily harm!

In some cases when the woman is thin it may help to fatten her. A little more weight will certainly make her look much better. As Weir Mitchell used to say, one can have more hope of helping a tired, nervous woman if she can be fattened, but as I have grown older I have become less concerned with the putting on of fat, and more concerned over the getting of mental peace and rest.

If the physician wants to fatten a patient he can generally do it if he has at his disposal a good sanatorium with a good cuisine. Needless to say, food for someone who is not hungry should be well prepared and attractively served. No grease should be in sight. Not too much food should be put on the plate at one time, and preferably one course should be brought at a time. No cod liver oil or other substance which the patient dislikes should be allowed on the tray.

Since the patient will probably have little capacity for food, or will feel full as soon as she starts eating, the available space in her stomach should not be wasted on substances that have little caloric value. Fats, of course, are particularly desirable, and the most digestible one is probably butter. It, or cream, should be hidden away in other foods such as soups, purées, mashed potato, cereals, and puddings. Occasionally the taking of much fat will produce nausea.

Patients often fear that they will not be able to digest food eaten under duress, but actually, if their minds are at peace, they can digest it and they will gain in weight. I have often seen them gain a pound a day. When they eat the food and do not gain, I suspect immediately that they are fretting over something. Usually it is an affair of the heart which is not going satisfactorily. When the treatment does succeed it is a delight to see a woman who, at first was thin, sallow, dull-eyed, and listless, change into one whose cheeks are full, whose complexion is clear, whose eyes are bright, and whose interest in the world has returned.

Much will depend on the character and skill of the nurse who is in charge. If she is cheerful, dynamic, tactful, and friendly, she will succeed in getting the patient to eat; she may help in curing some bad nervous habits, and during the first week of possible discouragements and setbacks, she will do much to keep the patient and her relatives in line and willing to go on to give the treatment a good trial. She will often find out for the physician what the problems are at home which have had most to do with causing the nervous breakdown. As Ross has said, she

should not try to be a psychotherapist, because only one person at a time should administer this form of treatment. Two doing it may get the patient confused and upset because of conflicting advice. If the patient should take a dislike to the nurse the physician should learn of it immediately and make a change.

Once a patient begins to gain weight she becomes interested in the progress of the line that is creeping up across her chart, and after that she needs less exhortation to eat. Strange to say, after a woman has been stuffed for a while she will often develop an appetite. Noteworthy also is the fact that she will have little more distress on an over-feeding diet than she had when living on tea and toast. *I tell her that for a time she will have distress no matter what she eats; so she might as well eat and become strong again.* Some persons will do better for taking milk with cream in the middle of the morning and of the afternoon. Others, however, will find that this takes away so much from the appetite for the three main meals that it does not pay. Dr. E. G. Wakefield tells me that he has found that when he insists that the woman gulp her food down in ten minutes by the clock she is likely to eat it all, but if he lets her dawdle she will leave half of it on her tray. In some cases it helps to give from 10 to 15 units of insulin twenty minutes before each meal. The lowering of the level of blood sugar sometimes improves appetite.

Visitors, and particularly those persons who are tiresome or alarming in their conversation, may for a time have to be excluded from the patient's room. For the first week or two it may be advisable to keep the woman in bed. After that she can be up part of the day. Many persons fear that they will be greatly weakened by such rest but they can be assured that they will regain their strength as soon as they get up.

When trying to fatten a patient it is best not to run the risk of upsetting digestion with laxatives. Sometimes the increase in the amount of food or in the amount of fat in it is enough to relieve constipation, but when it is not, the colon should be washed out every day with an enema of warm physiologic saline solution.

The foot of the bed should never be raised; there is no need for it, and it can only cause discomfort. At the start, soporifics may have to be given to insure sleep, but often with the rest, sleep will begin to come by itself.

A rest cure can be helpful diagnostically because while it is being carried out the physician and the nurse have an opportunity to learn many important facts about the woman: about her discomforts, her bad habits, her worries, her annoyances with relatives, or perhaps her concern over

someone whom she wants to have for a relative but for one reason or another cannot marry.

A rest cure can be of help diagnostically also when it does not work. Sometimes after several days of improvement there will come an acute upset with abdominal pain and perhaps vomiting, and the physician will become convinced that he is dealing with an organic disease such as cholecystitis or atypical migraine. In some cases the temperature chart will indicate that the primary cause of the trouble is an infection smoldering somewhere.

Sanatoriums for the care of the mentally deranged will take some of the psychoneurotic patients who need psychiatric help as well as rest, but it is hard on sensitive persons to be near the insane, and few persons will accept the social stigma of going to a psychiatric institution. Few also can afford to go and stay as long as they ought to stay. Unfortunately, these places must be expensive if they are to give all the services the patients need.

DIET

As I grow older I find myself handing out fewer and fewer diet slips. I refuse to give a diet to those many persons whose belching and abdominal distress are evidently due to nervousness and worry; I want them to feel that I am sincere when I say that there is no disease in their stomach and bowel, and that these organs do not need any coddling. In other cases I will not give a diet because the patient's distress comes the minute he puts anything, even water, in his stomach. Obviously, then, it is due to a mere mechanical stretching of the stomach and bowel. In other cases in which I do think a diet might help I tell the patient I cannot tell by looking at him what foods he cannot eat comfortably. *I will have to fit a diet to him*, using the methods described in the chapter on food sensitiveness. For all I know, he could thrive on cucumbers, Welsh rarebit, and pickled pigs' feet if he would only leave perhaps milk and eggs alone.

Some persons with what I call a small intestinal laboratory can be made fairly comfortable simply by having them cut down on the *amount* of any food eaten. Others need mainly to be encouraged to eat more. They will have some distress no matter how much they restrict their diet; so they might as well go ahead and have some fun eating!

Some persons with a poor digestion and perhaps a short carnivorous type of bowel will be much helped with a smooth type of diet from which

much of the roughage has been removed. They should take more meat, fish, and eggs, and less vegetables, salads, and fruits. They should go back to the original mainly carnivorous diet of our cave-dwelling ancestors. Actually, as I have pointed out in my book, "An Introduction to Gastro-enterology," man has the simple stomach and short intestine of a carnivorous animal. It is true that his colon resembles that of an herbivorous animal but it lacks the huge cecum of a rabbit or of a grain-eating bird. Actually, then, man was not built to be a vegetarian, and I marvel that he handles as well as he does all the spinach, salad, and green vegetables that he is now told he must eat. The girls who prescribe diets today would probably be astounded and incredulous if they were ever to hear that some of the huskiest races on earth like the Masai of Africa never touch salads or vegetables or spinach; they never take orange juice for breakfast, and they never saw a vitamin pill. With all our research, let us never forget that their children have beautifully spaced and perfect teeth, while ours, with all the forcing of vitamins, have narrow jaws and jumbled, crumbly teeth!

Long ago, when I first began the study of dietetics, the subject seemed to me hopelessly complicated. I could find diet lists for almost every disease, but authorities did not agree, except when, as often happened, they had copied from the same old German book, and I could seldom learn why they approved one food and forbade another. Sometimes a patient would show me several diet slips given him by as many physicians, and as I read the different instructions I wondered how he could still retain some confidence in the profession. In my perplexity I began to examine hundreds of stools to see for myself what substances commonly were escaping digestion, and I found that many of the patients who were complaining of flatulence and abdominal discomfort were bringing in stools full of coarse, undigested material, consisting mainly of cellulose. I then asked these persons either to stop eating the foods which evidently were escaping digestion or else to have them puréed, and as soon as they began to bring in stools which were smooth and paste-like in consistency, most of them began to report relief from flatulence and distress. Many had already discovered that they could not digest raw fruits but thought this was due to the acids contained.

On searching through the literature, I found that the virtues of a smooth diet had been known in the past to many physicians, including the Father of Medicine. I thought at first that these virtues were to be ascribed to the fact that cellulose is so indigestible, and its presence so likely to interfere

with the action of the intestinal ferments on starches and other foods; but later, when I learned that food goes down the bowel following a gradient of muscular irritability and rhythmicity; that in the sick this gradient is in places leveled or reversed, and that liquids will flow through reversed places while solids will not, I saw that there was still another way in which the smooth diet might be helpful. This is shown most strikingly in the experiment in which a section of bowel is cut out, reversed end for end, and the continuity of the tube restored with two anastomoses. As has been shown repeatedly, such a reversed loop will transport fluids but never solids. Evidently the original gradient of muscular force remains unchanged in the reversed segment, so it is like an uphill stretch of pipe which will transmit water but not stones. Animals with such reversed loops live comfortably only so long as indigestible articles can be kept from them, and when they die the necropsy always shows that a mass of straw and wood and bone has accumulated and has produced obstruction at the site of the upper anastomosis.

We can therefore say to a man with a flabby tract or a tract with irritated, narrowed, or reversed stretches that he should avoid eating cellulose-containing foods for much the same reason that he avoids putting paper, bits of wood, and cotton down a drain which has a poor gradient or, somewhere in its course, an uphill stretch or a narrow place.

But even if doubt remains as to the mechanisms involved, the fact is that since the time of Hippocrates a smooth diet has been found to help many sufferers with indigestion. It is a good diet to prescribe while one is studying a patient, and particularly when there is some suspicion that there is a beginning obstruction somewhere along the gut. It is a good diet to be given to hospital patients until the doctor orders something different.

When a man or woman complains bitterly of indigestion the average physician, who has not had any training in dietetics, is rather too inclined to fall back onto the use of a milk diet. I think this is unfortunate because in my experience the invalid who can digest milk will do just as well on moderate amounts of food chosen from the smooth diet list. Besides, milk does not agree well with one out of four patients; in large amounts it makes them "bilious" and constipated; it is too bulky, and it leaves a large residue in the lower part of the ileum.

The Smooth Diet. Following is a list of instructions and foods such as I often give to patients when I recommend a smooth diet.

This diet is based not only on practical experience but on a number of scien-

tific considerations. We have no ferment in the digestive tract which will dissolve cellulose, that is, the fibrous part of vegetables and fruits. Much of this material is therefore indigestible, and when eaten it throws a burden on the bowel. The fiber interferes with the digestion of starches and thus predisposes to flatulence.

The ideal diet in many conditions would be one which would leave only a small liquid residue which could trickle easily through segments of bowel in which the muscle is irritable, overly active, or contracted, or overly responsive to every stimulus.

The smooth diet should be tried out, and then if it works well other foods should be experimented with, one at a time. If you have learned by experience that some of the foods allowed on this list are hurtful to you, leave them alone.

If you are to give this diet a fair trial, eat no coarse foods with fiber, skins, seeds, or gristle. Avoid salads with celery, cucumbers, tomato, and pineapple, also many of the green vegetables, raisins, berries, jams full of seeds, nuts, and many of the raw fruits. Beans, cabbage, onions, peppers, melons, cucumbers, milk, and peanuts are likely to produce gas.

If you are living in a boarding house you can follow this diet by avoiding the forbidden foods and eating more of the digestible ones which are put before you.

Avoid sugar in concentrated form, and take no candy or other foods between meals. Fried foods are not bad if they are properly fried, that is, totally immersed in fat at the right temperature.

Avoid eating in a rush, or when very tired, or when mentally upset. Chewing gum may cause distress because air is swallowed with the saliva. The taking of purgatives should be avoided as they sometimes cause flatulence and abdominal distress.

For breakfast. You may have orange juice or grape fruit (avoid the fiber in the compartments). Cantaloupe and other melons may cause trouble. Coffee, if desired, is allowed in moderation; it sometimes causes flatulence. If you are sensitive to caffeine try decaffeinated coffee, or postum. You may have chocolate, cocoa or tea—if they agree with you—one or two eggs with bacon or ham, white bread, toast or zwieback with butter, any smooth mush such as farina, cream-of-wheat, corn meal, or rolled oats, also puffed cereals or corn-flakes. Shredded wheat biscuits and other coarse breakfast foods are not allowed. Bran must not be used. Graham bread is permitted but not the coarser whole wheat bread.

For lunch and dinner. In fruit cocktails avoid the pieces of orange and pineapple. Broths, bouillon, cream soups, and chowder are allowed; also meat, fish, chicken, eggs, and oysters. Eat smoked fishes, pork, crab, shrimp, and lobster only if you know that they agree with you.

Bread and butter are allowed, also hot biscuits if they are made small so as

to consist mainly of crust. Bread is most easily digested when toasted. You may have potatoes (baked, mashed, hashed-brown, or French fried), rice, sweet potatoes, hominy, tomatoes (stewed, strained, and thickened with cracker or bread crumbs), asparagus tips, beets, turnips, creamed spinach, noodles, macaroni, and spaghetti (cooked soft), and purées of peas, beans, lentils, lima beans or artichoke hearts. Sweet corn may be used only if the hulls are removed. There are practically no other vegetables that can be puréed to advantage. Very tender and digestible string beans can now be secured in cans. They are fine for salads.

No salad should be taken at first. Later you may try a little tender lettuce with tomato jelly, hard-boiled egg, tomato, string beans, pears, peaches, or chopped apple. Mayonnaise and French dressing are allowed. Potato salad without onions is permitted.

For dessert. Take simple puddings, custards, ice cream, jello, plain cake, and canned or stewed fruits, particularly pears and peaches. Cottage cheese and Philadelphia cream cheese are permissible; other cheeses may cause trouble. The filling of apple, peach, pear, apricot, custard, or lemon cream pie may be eaten.

In case of constipation, stewed fruit may be taken once or twice a day. In winter the dried pared fruit may be used for stewing. Prunes and figs are laxative and if eaten every morning or every other morning they will sometimes relieve constipation. Blackberries and loganberries can be stewed and strained and the sweetened juice thickened with cornstarch. This makes a delicious dish with the full flavor of the berries. Later you may try fully ripe pears and peaches. Bananas are digestible when cooked or when fully ripe.

Make no effort to drink extra amounts of water. Be guided by your thirst. Avoid excessive use of salt, pepper, or other seasoning. If you wish to gain in weight eat as much cream, butter, fat, starch, and bread as you can. If you wish to lose weight or to stay thin, live largely on the permitted vegetables and salads, with a moderate amount of lean meat each day, a glass of skim milk, and an egg.

Purées of many vegetables can now be obtained in cans from a number of manufacturers.

The diet should be tried faithfully for a time and if it works well it can be adhered to; if it does not give relief within a week, it should be given up.

If constipation is present, it is essential that it be regulated with the help of the mildest measures, such as enemas of warm water with a rounded teaspoonful of table salt to the bag.

PHYSICAL THERAPY, EXERCISE, AND MASSAGE

Many a weak and couch-ridden woman with an aching back can be put on her feet, literally and figuratively, with the help of an intelligent, cheer-

ful, and masterful physical therapist who will build up the strength of flabby muscles. Massage may be given during a rest cure also for its tonic effect. It works best for those "pussy-cats" who love to be stroked; persons who are ticklish or hypersensitive, or who hate to be touched by strangers will be harder to help. Persons confined to bed may be helped with resistance exercises. Stoutly built men who were once athletic but who have since become flabby and fat can often be helped by a course with a trainer. Ultraviolet radiation appears at times to raise the resistance of the patient to infection; it may improve the appetite and sense of well-being, and it may help in the putting on of weight.

Many of the patients who go to an internist are arthritic and have back-ache, "sacro-iliac strain," sore muscles and stiff joints and they, of course, can be helped most by a good physical therapist who will bake them and massage them and improve the motion in the affected joints.

In some cases physical therapy is helpful also because it keeps the patient busy and hopeful, and brings him or her back repeatedly under the influence and guidance of the physical therapist and the physician. It can keep many persons out of the hands of quacks. Many physicians are still making the mistake of allowing the cultist to take care of patients who would do much better in the hands of a well-trained physical therapist. One of the great advantages of having such work done in a physician's office is that he can keep watch over the patient, learning more about the nature of his illness, and seeing him during those little flare-ups which often throw much light on the nature of a puzzling illness.

OCCUPATIONAL THERAPY

Modern occupational therapy has been of great help to some of my nervous or psychopathic patients who didn't know what to do with themselves. There is nothing like work for steadyng human beings, making them more contented with life, and making them forget their troubles.

TREATMENT WITH DRUGS

The usual practice nowadays is to give phenobarbital to nervous, worried, depressed, or uncomfortable patients, but especially when they are depressed, I doubt if this is a good or a logical form of treatment. Certainly I have seen many cases in which it did not work well. I have no objection to giving a nervous woman a sedative at times when she is jittery and ready to "fly to pieces," but I doubt the wisdom of giving a depressant drug three times a day, day in and day out. I know that sometimes for a

while this will relieve symptoms, but still I am afraid of it. I often wonder if the physician who gives a woman 100 tablets of phenobarbital at a time and tells her to take three a day wouldn't scold her roundly if he found her taking these on the advice of a druggist. He would say then, "What do you want to do; get a habit?" Actually, phenobarbital is about the worst drug that could be used steadily because it is so slowly excreted from the body and therefore so likely to accumulate. The often-prescribed bromides, when taken every day in good-sized doses, also accumulate, and every so often I see a woman whose blood is so full of bromide that she has a mild psychosis.

As I say in the chapter on insomnia, I see no objection to giving barbiturates or bromides at night to a woman who is too tense and worried or tired to sleep, but I do not like the idea of drugging her all day and every day. There are times and days when a sedative will help, but even then, I hate to start the woman out on a "crutch" when what she needs is to learn to stand on her feet.

For twenty-five years a favorite sedative of mine has been bromural, which is an alpha mono-brom-iso-valeryl carbamide. The drug comes in 5 grain (0.3 gm.) tablets. It has the advantage over the commonly used salts of bromine in that it does not produce a rash. I have never seen this even in persons who were sensitive to bromine. A nervous woman can take one or two of the tablets when she feels jittery and on edge, as when she is beginning to menstruate. She can take the drug also when she cannot get to sleep at bedtime and particularly when she wakes at 4 or 5 in the morning. It is good then because it acts quickly and only for two or three hours. Seconal is another drug which seems to work unusually well for the neurotic person. Especially when given in a dose of 1½ grains (0.1 gm.) it tends to put the person to sleep in ten minutes before he or she can get any uncomfortable effects. Some jittery persons like to take ¾ grain (0.05 gm.) two or three times during the day.

Many physicians give strychnine to nervous patients, but from what I can learn of its pharmacologic action it seems to me that it should be the last drug on earth to give to these persons. They are already on edge, with reflexes exaggerated, senses overly acute, and the doorways to brain and cord open to every incoming stimulus. What they want is a sedative which will somewhat close these doors, raise the threshold, and quiet the reflexes, and not a drug which is pre-eminently a connector of nervous pathways.

I have little faith in tonics and I seldom prescribe one unless I see that the patient wants one and is a great believer in drugs. I think their value

is largely psychic, and for this reason when I do prescribe one I sometimes like it to have an impressive name like "beef, iron, and wine." Under the influence of these magic words the patient surely ought to feel better! Intramuscular injections of cacodylate of sodium may do some good directly, but I think often their main use is to bring the patient back at frequent intervals for observation and encouragement. I hate to see drugs being injected intravenously; this practice injures the veins, which may be needed badly some day; it has its dangers; it is not necessary, and, I fear it causes some persons to become allergic.

Today almost every patient is given vitamins, and perhaps they do some good. It is not clear why more of a vitamin should help when a person has enough, but there is some evidence to indicate that persons do better when they have more than the optimal supply, and it may well be that some of our patients are not getting a normal amount of the B complex. I must admit that as yet I haven't seen any miracles produced by the forcing of vitamins on middle or upper class patients. When I do prescribe vitamin B I usually give a syrup of the B complex. It seems foolish to pay a pharmaceutical house to separate and purify the several fractions and then to put them together again in a pill.

I doubt whether there are many gastro-enterologists today who use pepsin or pancreatin unless they know the patient has a definite gastric or pancreatic achylia. As Fermi, and later Ivy, showed, these substances have little influence on digestion unless given in large amounts. Bismuth is a drug which the gastro-enterologist seldom uses now except in cases of ulcer or diarrhea, and then he gives it in rounded teaspoonful doses. Belladonna in physiologic doses is so annoying to many patients that I rarely use it. It sometimes has a good effect on constipation or on a sore colon but I believe that in most cases it is of little value. I doubt if it can ever have a really curative effect. There is evidence that trasentin sometimes works better than belladonna does. The dose is from 20 to 100 mg. Novatropine also is being used by some physicians as a relaxant.

The drug that we need much in gastro-enterologic practice is one that would improve the downward current in the digestive tract and would thereby put a stop to nausea, belching, and acid regurgitation. Unfortunately, we have many drugs that will reverse the current and send waves orad, but with the possible exception of calomel, I do not know of any that can be counted on to restore the downward trend. Probably the best substance to give for the relief of nausea is solid food.

FOCAL INFECTION

I doubt if focal infection often accounts for fatigue states and nervous breakdowns. Certainly I rarely can secure evidence to make me think that it does. Those few patients who still have their tonsils will often want to know if they should have them out, and then the answer to one question will give me the information I want. Years ago a study of a few hundred persons who had parted with their tonsils showed me that the patient who is not subject to attacks of tonsillitis or sore throat has perhaps one chance in fifty of getting help from a tonsillectomy. I do not remember a case in which the removal of tonsils from an *old* man or woman did any good.

In talking to patients who have a fear of focal infection or who have a disease like infectious arthritis which might possibly be helped by the clearing up of foci, I find it helps the patient in understanding the problem to mention those few places where pus might be found, such as sinuses, devitalized teeth, tonsils, bronchi, prostate gland, uterine cervix, and urinary tract. I doubt if the un-ulcerated colon is a source of infection, and Hench has shown that in cases of arthritis the removal of an infected gall-bladder does not help.

CONSULTING WITH THE PATIENT ON THE QUESTION OF OPERATING

There are many cases in which the question of having an operation should, to a large extent, be left to the patient to decide. For instance, a woman may have a backache and the orthopedist may say that he might perhaps cure it by immobilizing two or three vertebrae with a bone splint. He does not urge it, however, and asks the patient whether she feels ill enough to go to all that trouble and expense to get relief. Usually she says, "No," that she is not suffering enough for that, which is just what the surgeon suspected. In other cases, as when a person is in great pain and perhaps incapacitated because of a sciatica, he or she may welcome the proffered operation, and this will strengthen the neurologists and orthopedists in their opinion that there is serious disease in the lumbar region.

Sometimes when there is a question of cutting a nerve or two in the hope of relieving a pain, the wise surgeon will keep asking the patient if he is sure that he will not come back later complaining more about the new numbness than he is now complaining of the old pain.

ON WRITING A LETTER OF FINDINGS TO THE HOME PHYSICIAN

The consultant should always remember, as he writes a letter of findings, that the home physician commonly hands it over to the patient. Hence it

is that if a consultant expects to cure, let us say, a cardiac neurosis, he must be just as positive in his statements to the home physician as he was to the patient. If he did not mention to the patient a functional heart murmur, a trace of albumin, or an old tubercular scar in the lung, because he thought them of no significance and was afraid of starting the patient on a career of worrying, he had better not mention them in the letter. If the patient were to find them described there he might lose trust in the internist, and might begin to wonder what else had been concealed from him.

Another thing I try to remember to do in certain cases is to mention the fact that although the findings are negative, the patient is certainly ill and in need of sympathy and help. I do this because many a time I have been injured in a patient's eyes when the home physician looked up from reading my letter of negative findings and said, "He says there's nothing the matter with you." Actually, I would never have thought of saying such a thing about a poor woman whose life was being ruined by a painful and incapacitating psychoneurosis. There is little comfort in knowing that the home doctor who acted in this blunt and impolitic way turned the patient against himself as well as against me, and lost her good will and that of her family.

Naturally, and if only because the patient will probably read what the consultant wrote, he had better not say anything unpleasant or critical or sarcastic which could cause hurt feelings. Often when I have to say that I am sure certain symptoms are those of hysteria, I try to take the sting out of this by saying every kindly thing that I can about the patient, as that I found her a fine and likeable woman who had been through enough strain to make anyone tired and nervous.

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