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OF PHYSICIANS AND SURGEONS AND THEIR MUTUAL RELATIONS*

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LAST winter, within ten days, I operated on 3 desperately ill patients. The first was a man with acute appendicitis who had been treated medically for two days. The second was a woman with obstructive malignancy of the colon who had been treated for constipation and indigestion for three years. The third patient, also a woman, presented a necrotic bowel following intussusception and had been treated by colonic irrigations for a week. They all died, and they were all, naturally, charged against me as surgical deaths. I have no doubt that in each instance, had my course been different, the outcome might have been happier, but, and this is the crux of the situation, in each instance I saw the patient only after medical treatment had failed to effect a cure.

These are extreme instances, I grant you, or rather the sum of them is extreme; yet every practicing surgeon is confronted again and again with the same problem. A hundred years ago perhaps there might have been some excuse for it, for medicine and surgery had not yet fully emerged from the blight of the great medieval schism. You know how these two great branches of medical science, unified under Hippocrates, our common father, were separated from each other in the thirteenth century by the Papal Bull which forbade the monks, the physicians of the day, to participate in the shedding of blood, and which left surgery a separate and inferior branch of medicine until, to quote Cushing, it climbed into some measure of professional and social esteem by way of the barberpole. Until very recent times the surgeon's lot was not an enviable one. He was a mechanic and nothing more. He did his cutting at the instigation and under the actual direction of the physician who had called him in, and often he was not even permitted to be present at the consultation which determined whether or not his services would be needed.

Of course he is no longer the stepchild of medicine. He is true son in his father's house. But at that, the old ideas persist, the middle wall of partition is not yet broken down, and medicine and surgery are still covertly if not overtly hostile to each other. Yet they are not separate branches of medicine. They are not substitutes for each other. Rather, each is the complement of the other, and except in the matter of actual therapeutics their paths should not diverge. Medicine may be an abstract art and surgery a concrete one, but their aims are and should be the same, and, as Royster shrewdly says, the business of the physician should be to cure the patient, not to parcel him out.

The surgeon very often does not have a fair deal in the matter of treatment, not to speak of diagnosis, and I do not make that statement because surgery happens to be my specialty. It cannot be denied

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that probably 90 per cent of all surgical conditions are seen first by the family doctor, the general practitioner, the internist, or whatever you may choose to call him, and that the surgeon is usually a consultant, and a late consultant at that. It is the medical man who sees and evaluates the inaugural symptoms of disease, and who, when medical treatment has failed, calls in the surgeon to do a purely mechanical job and, in a regrettable number of instances, to sign the death certificate. The surgeon, do not misunderstand me, is not free from blame. He hesitates and temporizes quite as often, proportionately, and quite as disastrously as his medical confrère. But his chances of error are fewer because in the majority of cases he is in only at the end, is in, often, literally only at the death.

Why the internist should dread surgery, if not the surgeon, it is hard to say, but it is an undeniable fact that he does. I am not now referring to that very small proportion of medical men who are wilfully dishonest, who falsify postoperative mortalities and multiply operative failures, who divert their patients from the surgery they often urgently need with the story of its risks and its poor results. These gentry exist, though fortunately for the credit of our profession they are few. But I have reference to the well-trained, scholarly, competent, honorable medical men who, in spite of their training and their experience, simply will not regard surgery as a branch of therapeutics, who persist in regarding it as a last resort, a method of treatment only slightly less dangerous than the disease itself, and therefore not to be considered seriously until death threatens or life becomes intolerable without it. That point of view clearly is responsible for many of the disasters and many of the failures of surgery. Of course there are some things which surgery cannot do; like old Sir Thomas Browne, "I am not only ashamed but heartily sorry that besides death there be diseases incurable" and I would not have you think that mere cooperation between physician and surgeon will bring about a medical utopia in which there shall be no more death. But I would plead for a closer liaison between them, and particularly for an earlier liaison.

This is especially true in the matter of diagnosis. Some diseases are frankly medical, others are frankly surgical from the outset, but there still remains a very large proportion of diseases which are frankly neither, but which may be either or may be both, and which, for their care and cure, demand equally the resources and the skill of both medical man and surgeon. Surely the surgeon has as much right to share in the study of such patients as the medical man has. A sheaf of reports may save him effort, but nothing can take the place for him of personal bedside observation, particularly in conditions in which the findings change from day to day and hour to hour. In the matter of laboratory studies I do not think the surgeon has entangled himself quite as deeply as the medical man has, and for myself, I plead guilty of belonging to that old school, now rapidly disappearing, I fear, which believes that the sole purpose of the laboratory is "to increase the accuracy of a clinical opinion," the opinion being based, of course, upon clinical observation and clinical experience and not upon mere guesswork.

Another consideration is the matter of treatment prior to diagnosis. Later I shall take up this subject in reference to special diseases, just here I would simply point out that the treatment of symptoms instead of the treatment of the essential pathology which is responsible for them, while it is a regrettable necessity in a certain proportion of cases, a certain very small proportion, is, as a general thing, a procedure heartily to be condemned. In the first place, it is seldom of more than passing benefit; in the second place, it means the loss of valuable time; in the third place, it may do actual harm. There is both a science and an art of

medicine, and while it is the art of meeicine which cures the patient, it is the science of medicine which makes the art possible.

It is difficult to conceive of any medical disease which may not present either an inherent or an intercurrent surgical factor, and in exactly the same way it is impossible to conceive of any surgical disease which may not present a medical factor. The chest cavity, for instance, was long considered a surgical *noli me tangere*, but consider the advances recently made in the treatment of chest conditions, advances which are in large part due to the investigations of the members of the American Association of Thoracic Surgeons and which disprove for the hundredth odd time Erichsen's remark of seventy-five years ago, "Surgery is at its zenith and no further advances in it are possible." Extrapleural thoracoplasty yields a fair measure of success in diseases formerly considered strictly medical. Graham has devised the operation of lobectomy, applicable to the occasional case of localized bronchiectasis. Claude Beck has recently suggested pericardiectomy for Pick's disease, and Trendelenburg's operation for pulmonary embolism has been simplified and given a wider application, notably by Prof. Nystrom of Sweden. Cutler has done brilliant cardiac surgery for mitral stenosis. Coffey and Browne have advised the treatment of angina pectoris by sympathectomy. Phrenico-exairesis has been suggested for tuberculosis and similar lung conditions, and tuberculosis of the unilateral type is arrested in the majority of cases by putting the affected part at rest by artificial pneumothorax. Pneumonia is a distinctly medical disease, but once the crisis has occurred, if fever persists, then the surgeon had best be summoned promptly, for empyema is undoubtedly a complication and the sooner that fact is recognized and surgical intervention instituted, the shorter will be the morbidity and the less the mortality.

These chest conditions furnish a particularly good example of the point I have been trying to make, for chest couditions are traditionally the domain of the medical man. Yet I am sure you will agree that every one of the diseases I have named could, in selected cases, be benefited by surgical intervention. On the other hand, the type of case for surgery, the time of intervention, and to some extent the degree, can best be decided upon by the internist. Auscultation and percussion of the chest cavity require a high degree of skill, and the surgeon lacks practice in them and is correspondingly inexpert. There should be no hasty resort to surgery, for the chest has a recognized ability to tolerate large accumulations and a recognized immunity to infection, but it is likewise a mistake to defer measures of relief until respiration is embarrassed and the heart is displaced. Surgery of the chest, by the way, furnishes a very excellent illustration of the need of surgery and medicine for each other. It was Murphy the surgeon who first thought of putting the affected lung at rest, but, as Cushing has pointed out, it was Jacobaeus the physician who conceived the intrathoracic separation of pleural adhesions and so completed the operation.

Diabetic surgery is another particularly shining example of the cooperation for which I am pleading. Formerly it carried a mortality which ranged, at least for some procedures, as high as 50 per cent; now, thanks to insulin, the diabetic, providing he is properly prepared, is almost as safe a surgical risk as his non-diabetic brother. He is liable to any surgical condition to which the rest of mankind is liable, and he is particularly liable to two special conditions, infections, and gangrene of the extremities. He has certain definite disabilities, especially a tendency to acidosis and coma, and these tendencies are exaggerated under the stress of his surgical condition. His diabetes increases his infection, his infection increases his diabetes, and insulin, his safeguard ordinarily, loses from 50 to 75 per cent of its effectiveness under the circumstances. His pathology

is fundamentally medical, yet his surgical complication is a tremendously important incident in it. As Joslin says, the patient who is treated first for his diabetes and second for his surgical condition is likely to have a very brief illness. He demands a dual control. His safety rests upon a preoperative preparation and a postoperative care almost mathematical in their exactness, but not to be applied by a standard formula, for each case must be evaluated and treated individually. The surgeon has neither the time nor the training to apply this care. In this single instance his function is solely to give mechanical relief, and to exercise increased promptness and increased gentleness as he gives it, for the diabetic does not tolerate delay or trauma. Particularly in diabetic gangrene is promptness of treatment essential. Surgical intervention at an early stage may permit conservatism, whereas surgical intervention at a late stage, even if it is successful in the sense of preserving life, must always be radical. I emphasize this point particularly, for future usefulness is a very important consideration in these days when, as the result of insulin, the life expectancy of the diabetic has been so materially increased.

Although its treatment is chiefly surgical, osteomyelitis is a disease whose diagnosis, I have learned from a sad experience, is practically never made by the surgeon for the simple reason that he never has the opportunity of making it. Acute osteomyelitis in its initial stages is never seen in surgical wards. They are filled with chronic cases, usually cases with extensive bone destruction and often lessened constitutional resistance. The correct diagnosis is not made in 25 per cent of all early cases, temporizing medical measures are employed at the only time when conservative surgery would be of benefit, and finally the patient is handed over to the surgeon when nothing short of a mutilating operation could be expected to give results. This is a disease which is curable in nearly 100 per cent of all early cases by the simple procedure of making an opening into the involved bone, a procedure which would do no harm, by the way, if the diagnosis of osteomyelitis should happen to be incorrect, and which would eliminate most of the mortality, the disability and the economic waste which now follow in its train.

The acute abdominal diseases furnish the best possible illustration of the bad results which are inherent in a lack of cooperation between the internist and the surgeon. All of them except acute cholecystitis and acute salpingitis, which are self-limiting diseases, are frankly surgical, and the mortality rates in them depend, above everything else, on the length of time which elapses between the onset and surgical intervention. Symptoms and pathology do not necessarily parallel each other exactly: pathology always exists for a longer or a shorter space of time before it manifests itself in symptoms, and unbelievably grave pathology often ensues in an unbelievably short time. But as a general rule it is true, and it has been proved by clinical experience and statistical studies, that the prognosis in acute abdominal diseases is dependent upon the length of time between onset and operation. If surgery could be done within twelve hours after the appearance of symptoms, the mortality would be almost negligible. What Lord Moynihan says of intestinal obstruction, that any mortality over 10 per cent is the mortality of delay, could be applied, with a change of figures to suit the special case, to every instance of acute abdominal disease.

Intestinal obstruction and acute appendicitis are responsible for the highest proportion of fatalities in abdominal disease, and they furnish it because of delay. Patients are treated ignorantly, not expectantly. They are given purgatives, too often by physicians, which increase the pathology present, and they are given opiates which mask the symptoms. Surgical intervention is delayed until the classic syndrome appears, with complete oblivion

of the fact that the initial signs of these two diseases, the initial clinical manifestations, differ radically from the classic syndrome, and that its appearance quite as often heralds the exitus as it clinches the diagnosis.

I am not an advocate of promiscuous surgery; I am a firm believer in accuracy of diagnosis; but I likewise contend that in acute abdominal conditions in which the pathology is doubtful, an exploratory incision is nothing more than the patient's right. Most of these diseases are surgical, and Whipple's advice to eliminate non-surgical conditions and then operate is life-saving advice. An exploratory incision does not kill, though many a patient dies because it is withheld, and it would profit both surgeon and internist to study their pathology in the living subject through an opening in the abdomen rather than at the most careful possible autopsy, when the investigation can no longer benefit that special patient.

The relationship between the two chief gastric diseases, ulcer and carcinoma, is admitted, though the exact proportion is still debated. It is granted, I think, that some 6 per cent of all supposed ulcers are primarily malignant, and the percentage which becomes malignant later is variously estimated at from 10 to 70 per cent, McCarthy of the Mayo Clinic being responsible for the latter figure. If we accept the fact of the relationship, regardless of the exact figures, we must accept as a corollary that surgical treatment of all ulcers which do not respond promptly to medical treatment is the only sane treatment. I am far from saying that all peptic ulcers should be treated surgically. I am entirely in favor of a fair trial of medical measures, though I would add that it is difficult to estimate the proportion of ulcers which are thus cured. For one thing, all ulcer diagnoses are not correct; even with the *x*-ray there is a very fair percentage of error, and without it a diagnosis is not worth the paper it is written on. For another, the cure of an ulcer must not be confused with the relief of its symptoms, which latter, by natural remission, would occur with no treatment at all after a certain period of time. Last year, within a month, I operated on two medically cured cases of peptic ulcer. Both patients were almost exsanguinated, and both of them were correspondingly poor surgical risks. They both recovered, but I do not think their respective physicians were ever convinced, in spite of my eloquent exposition of the subject, that operation before the hemorrhages had occurred would have been better for the patients, not to mention my own peace of mind for several days postoperative, though I am equally sure that if the outcome had been otherwise the deaths would have been charged to surgery and its attendant risks.

As a matter of fact, the surgical mortality after gastroenterostomy, which is the preferred treatment for uncomplicated ulcers, is very small in elective operations done by competent surgeons, though it mounts appreciably in the presence of hemorrhage and perforation, both of which contingencies, it seems to me, are usually reflections on the quality of treatment which permitted them to come to pass. Moreover, Balfour's recent study shows that the life expectancy after operation for peptic ulcer is rather more than ten years longer than the average life expectancy for the same age. This being the case, it seems only reasonable that the patient be given the opportunity of deciding for himself whether he prefers to live his life hedged about by dietary restrictions, with the risk of hemorrhage and perforation always a possibility, and not always a remote one, or to take his chances with surgery, which is seldom as dreadful as it is pictured. One last word on this special subject: the Mayo Clinic is able to report the highest recorded percentage of cures for gastric malignancy, and the explanation is perfectly simple; their policy is to explore routinely for indigestion of undetermined origin which

does not yield promptly to treatment. For that reason they encounter the disease in its early and therefore in its operable and therefore in its curable stages.

Much the same argument holds for gall-bladder disease. Not all cases demand operation. The acute type never does, unless there is evidence of impending perforation, gangrene or rupture, all of which are late manifestations, all of which increase the surgical mortality appreciably, and all of which, again, are reflections on the type of professional attention which permitted the disease to reach such a pass, The type in which only the bile is infected and the wall is not involved, and in which there is an associated duodenitis, is not a recurrent condition and is not benefited by surgery, as I know from one regrettable personal experience. Nor does one attack of cholecystic disease usually serve as an indication for operation; there is little excuse for that sort of reckless surgery. But I would remind you that this is a disease which we now know begins early in youth, not late in adult life, as we had once supposed, and which is manifested then by indigestion and not by the characteristic syndrome we have long associated with its adult manifestations. Medical treatment is indicated over a limited period of time; if it does not effect prompt results, then there should be a prompt resort to operation, for repeated studies show that the cases of gall-bladder disease which are not benefited by surgery are the cases in which the disease can be traced back many years and in which there is marked associated pathology in the ducts, the liver and the pancreas. Surgery in such cases will arrest the further advance of the disease but it cannot work miracles, complete relief of the symptoms is not to be expected, and the failure should not be charged to the system of therapeutics but to the procrastination which permitted a practically irremediable condition to develop. The cooperation of the internist is often sorely needed in these late cases, to assist in preparing the poor risk for operation and to train him afterward in the principles of rational living. My own experience is that no group of patients is harder to control in this regard, and the internist is far better equipped for the task than is the surgeon.

Thyroid disease is on the borderline of medical and surgical diseases. It may be stated categorically that simple colloid goiters and cystadenomata are never surgical unless their size demands mechanical correction, but that all toxic thyroids are surgical. Likewise it should be emphasized that the prevalent conception that the continued use of Lugol's solution will cure them is entirely erroneous. I have recently seen a patient with a toxic goiter who had been treated by this method for more than a year. He is coming to operation now, not in the least benefited, of course, with an impaired heart function and a lessened constitutional resistance, and with the usual beneficial effects from the preoperative administration of Lugol's solution not to be expected. The patient with a toxic thyroid needs the most careful possible treatment, but he is from the beginning a surgical and not a medical problem.

One other specific condition deserves at least passing notice, the disease we ordinarily term chronic appendicitis, though I hesitate to call it appendicitis, for it is usually something else. The recurrent type of appendiceal disease is, of course, strictly a surgical condition, but the vague syndrome characterized by right iliac pain and indigestion is definitely not, though it is frequently handled as if it were, and it materially increases his percentage of poor results for the surgeon who acts as if it were. It is preeminently a disease for the medical man to diagnose and treat, for everything from simple constipation to intercostal neuralgia must be differentiated from it. And if the surgeon finally in desperation attempts to cure it by surgery, my advice to him would be to have the medical man at his elbow during his performance, as well as during later office

consultations with the patient, for in only too many cases there will be reproaches to be divided.

Lack of time does not permit me to emphasize the important rôle which the medical man plays in the preparation of poor operative risks, the cardiac, the cardiorenal and the pulmonary patients, whose preliminary care is often prolonged and exacting, and for whom the time of operation should be set by the internist, not the surgeon. Likewise, I cannot emphasize the internist's rôle in the care of postoperative patients, particularly those with cardiac and pulmonary complications, though these latter are fortunately becoming rarer as the technic of anesthesia becomes more expert and the choice of anesthetics wider. As a matter of fact, it would be an ideal thing, though I am afraid a rather impractical one, for a medical and surgical alliance to be formed for the management of all surgical cases. As Royster puts it, the medical man is needed not only for postoperative patients who are doing poorly, but for patients who are doing well to keep them from doing poorly. That is a wise and rational view, for many a partially or wholly unsuccessful operation of my own I know could have been transformed into a successful one if the patient had only been taught afterwards the principles of correct living.

I have not meant in this cursory paper to give you the idea that I am advocating that the medical man should undertake the functions of the surgeon or the surgeon the functions of the medical man. Nothing is further from my thoughts. Medicine is too complex, too manifold, to permit of that today, even if it were desirable. Nor have I intended to be ungracious in my strictures on the medical man. I naturally speak with a bias for the surgeon, but I freely admit that both are equally guilty of this unhappy division. My only point is that the hostility must be ended, that we are not fulfilling our duty to our patients as long as we permit it to exist. Dr. Harvey Cushing, in one of the most scholarly addresses ever delivered before the American College of Surgeons by any of its presidents, opened and closed his paper with a quotation from an old medieval physician, which I take the liberty of repeating to you: "No one can be a good physician who has no idea of surgical operations, and a surgeon is nothing if ignorant of medicine." That was his theme, as it has been mine. We are all physicians. Some of us practice medicine, some of us practice surgery. But in the fundamental things we are all physicians. And that, after all, is all that really matters.