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Trancription begins:

THE COLLEGE JOURNAL OF MEDICAL SCIENCE.
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ORIGINAL CONTRIBUTIONS.

Nature and Causes of Asiatic Cholera.

by Prof. Michael von Visanik.
Translated from the German by T. C. Miller, M. D.

EVER since the first appearance of the epidemic cholera physicians have endeavored to investigate and discover the inner nature and true cause of the disease, that upon the knowledge thus obtained they might base a rational mode of treatment.

But in accordance with the prevailing usages of the profession, the nature and causes of this fell disease have remained unknown and the attempted explanations have been based upon hypotheses and empirical observation and not upon any rational and accurate course of observation and reasoning. Some have explained the etiology as a "*virus*" others as "*humores alienati*," and have contented themselves with these unintelligible abstractions as sufficient to account for the origin and duration of the contagion and disease. But we have recently become dissatisfied with these phrases in place of ideas, and since the researches of the pathologist and the chemist have given us more definite

information, the reformatory truths obtained from them have enabled us to
pg. 386 penetrate far more profoundly into the true nature of this epidemic.

It would prove fatiguing to the reader for me to enumerate all the various hypotheses which have from time to time obtained in regard to the etiology of cholera, and hence I shall only glance at a few of the more prominent of them as prefatory to the opinions and conclusions to which I have arrived.

It has been observed that fat, and particularly the fats that are to be found in diet where the food has become sour and rancid, will if eaten often produce symptoms very closely analagous to cholera, and from this observation the conclusion has been drawn that the cholera miasm is one produced by a specific decomposition of animal tissues forming a combination of gases similar to those evolved in the decomposition of sausages, and which is known as the *sausage poison.* That this view cannot be correct has become evident to nearly all.

Others have supposed that cholera is caused by what they have been pleased to style the *cholera-mite* a supposed microscopic animalcule diffused in vast quantities through the air, the food and the drink, and that these animalcules are the *potentia nocens* of the disease. The advocates of this hypothesis attack all other opinions and defend their own with great violence, and are very strenuous in the advocacy of what they assert to be the cause of cholera. Among those of this class are many able microscopists, and yet they have neglected to bring forward the only strong and indisputable evidence necessary to establish the accuracy of their deductions. They are unable to bring forward any person who has been so fortunate as ever to have seen this wonderful cholera-mite.

Not a few have directed their attention mainly to the stomach and the intestines and think they find in the vomiting and purging the true explanation of the cause of epidemic cholera; which cause to them is the irritative and congested condition of the alimentary track. On this hypothesis have they based their high estimate of the value of opium and have viewed it as a specific against the disease.

This view of the matter is so superficial and so illy sustained by the symptoms of the disease and the results of treatment that most have abandoned it. All who have had any experience in cholera and its treatment will have observed that the danger of the attack is by no means proportionate to the activity of the vomiting and purging, but that it frequently appears extremely severe and fatal

where but little vomiting or purging have occurred. But this class of persons have their attention so closely drawn to their fancied seat of the difficulty that they never perceive these facts and never have the faintest glimpse of the true cause of the disease. pg. 387

Some also, have considered cholera to be caused by some derangement of the chylopoietic vicera, but the anatomical and autopsical examinations have given no countenance to this conclusion.

The peculiar symptoms manifested in the asphyctic condition of cholera has induced some to suppose that the whole difficulty arose from a weakness or loss of functional power of the nerves, but more especially of the spinal cord; but the revelations of the dead-house have not confirmed these conclusions and did much to disprove the accuracy of the opinion entertained.

More recently in their search for the seat and origin of cholera physicians have been guided by what they have learned in regard to the blood, its changes and decompositions, and they have observed that in cholera there is a partial decomposition of the blood, with contemporaneous alteration in the walls of the capillaries by means of which the *serum sanguinis* in large quantities passes through their walls, or is poured directly into the stomach and intestines, leading to the profuse vomiting and purging by which this serum is removed entirely beyond the organism. This decomposition of the blood and the outflow of its watery portions is often produced with wonderful rapidity—while the more solid portions, as the red-corpuscles, is retained in the vessels, and thus the fluid is rendered thick, dark and very liable to stagnation, to clog up and produce congestion of the vessels. The thick blood also stagnates in the vessels of the skin, and causes the blue appearance nearly always observed in that tissue. In the larger veins, and in the brain, in the liver, and the spleen, and the lungs this stasis also occurs, and hence the difficulty of breathing, the deafness, the aphonia, the thirst, the scanty urine, the coldness and numbness, that accompanies this disease.

Although this explanation is in accordance with the observations of the profession, yet it may not satisfy all, for many deny that any explanation can be given which shall prove satisfactory, and they desire to know how it is, if the blood is **realy** separated, that a part of the serum is not thrown into the cellular tissue, and not the whole of it poured into the alimentary canal, or through the skin in profuse perspiration. Why are not the pleural and abdominal cavities

"really"? —*Ed.*

filled with this fluid? why is the patient not attacked with hydro-thorax and anasarca? are questions urged against this opinion.

There can be no doubt but the nerves which supply the vital force to the walls of the blood-vessels are impaired during an attack of cholera but those who entertained the opinion that the nervous power is diminished, are divided as to which is the *prime* cause of the difficulty, one class supposing the atony of the vessels and the consequent out-flux of the fluid impairs the nerves, while the other supposes that a poison has been introduced into the system which acting directly on the brain thus lessens the nerve power, and the loss of that power leads to the atony of the blood-vessels and consequent exhalation of the serum.

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There seems to be *three* principle classes of opinions as to the primal nature of cholera. 1st. A primary poisoning of the blood. 2nd. A primary affection of the nerves. 3d. A primary local affection of the alimentary canal.

From what has been said, we may perhaps draw the conclusion, that cholera, like other epidemics, as scarlatina, measles, intermittent fever, typhus fever, influenza, etc., owes its origin to a cause having a uniform origin, or at least a uniform character, while, as in the other instances, as to its peculiar nature, we may be entirely ignorant. Many physicians have striven hard to learn the exact nature and character of this morbific agent, and yet they have acknowledged a want of success.

With others, I too, have tried to solve this mystery and having had an opportunity of observing personally more than two thousand cases of cholera in different epidemics, I am led to present the following observations.

Cholera does not appear every where and at all times to possess precisely the same characteristics. At one time it will appear mild and very easily cured. But this slight form only appears in those persons whose systems appear to have but a slight *disposition* for the disease, and hence it cannot exert as powerful an influence upon such as it does upon those who are more predisposed to its attacks, and the disease will take *the form of cholera periculosa exquisita.*

Most of those who are disposed to inflammatory disease seem also disposed to receive cholera, and hence the two diseases are often met with in company. In "*cholera febrilis*" there are several congestions of the head, the lungs, or heart, in conjunction with the more ordinary symptoms of cholera. In persons who have a predominating disposition to vomit, the cholera will commence

with vomiting, while with those who are disposed to looseness of the bowels, it will commence with a diarrhœa, while with those who are predisposed to the cholera, and at the same time their nervous and arterial systems are equally susceptible, the disease will take the form of *cholera fulminitisima asphyctica.*

Climate exercises upon any prevailing disease a powerful influence. This is manifested in epidemic cholera. In some countries and climates, it appears as *cholera febrilis*, with intense congestions; in others as *cholera spasmodica*; pg. 389 while in other climates, vomiting and purging are the most prominent features of the disease.

It is' also important, in the investigation of the cause of cholera, to learn to distinguish between the genuine cholera and other forms of disease, as well as to decide what results are produced from cholera and what from other causes, and it is only those who have had considerable experience in this disease who can always make this distinction.

The pathologico-anatomical, and the pathologico-chemical results of the disease **coutribute** largely to the knowledge requisite to determine the cause "contribute"? —*Ed.* and nature of it, and they therefore must never be neglected or overlooked. The post-mortem examinations and the examinations of the secretions and excretions must be made, particularly the secretions and excretions of the liver, the spleen, the kidneys, the stomach, and the intestines, but more particularly the excretions of the kidneys, and on the results of these examinations may we base our own view of the nature and cause, as well as of the treatment of the diseases.

During the last epidemic the post-mortem examinations have furnished in general and in particular, the same results as those obtained during former epidemics. The skin of those who died of the disease has been cyanotic, or blue colored, particularly the skin over the extremities. The vessels in the sinuses and meninges of the brain have contained much thick dark blood. The inner meninges have been congested, with ecchymoses. The brain itself has been firm, and on intersection has disclosed similar ecchymoses in its substance. The pleura and pericardium, and all the serous membranes have a slippery feeling, showing a separation of the delicate lining from the subjacent parts, and covered with a glutenous albuminoid fluid. The lungs are dry and of a clear red, and bloodless. The heart, particularly the left ventricle has been drawn up, and in it and in the large vessels we have found a thick black, tarry blood possessing

little or no power of coagulation. The liver is pale, and the gall-bladder filled with much dark bile. The spleen is usually enlarged, dark red-brown, and its enveloping membrane thrown into wrinkles. The stomach and intestines are filled up with a rice-watery, or a bloody colored fluid, with the mucus membrane of the stomach swollen and injected. The epithelium of the intestines in nearly the whole extent is dead, and rubbed off; the mucus membrane red, and the follicles swollen. The kidneys in most instances presented distinctly the changes which are found in the disease known as *morbus Brightii*. This changed condition was particularly found in those who had died of that form of cholera known as the *cholera-typhus*. The bladder was found contracted and empty.

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In addition to the changes here specified others were noted but they were supposed to be caused by the presence of some other modifying disease, and hence not attributable to the cholera and not to be accounted as a pathological result of the epidemic.

Pathologico-chemically, it was found that the blood was relatively and absolutely poorer, or more deficient in water, having an appearance resembling mud.

It was also quite deficient in alkalinity, particularly in the **tripple** phosphates, and the carbonate of soda. There was also often a deficiency of the carbonate of ammonia which it is well known has equal power to influence the coagulability of the blood and the integrity of the red corpuscles.

"triple"? —*Ed.*

In all instances it was found that the cholera blood chemically was closely allied to putrescent blood, and readily made to undergo the putrefactive ferment, far more easily than healthy blood.

The evacuations were all found to be rich in water, and in the alkalinity of which the blood was deficient, particularly the tripple phosphates and the carbonate of soda, while they contained but a trace of albumen. Occasionally in the bladder would there be found a little of the blue coloring matter mixed with chlorides and the earthy phosphates, while under the microscope could be discerned in the sediment the tuff cylinders and the epithelium which had been discharged from the lining of Bellini's small urin-ducts.

The secretions from other parts of the body have not been as carefully examined as they should be, but thus far have furnished only negative results.

If now we consider the changes produced in cholera as here described are not always uniform, or of an equally marked character, but that they depend upon the force of different influences—that epidemic cholera not unfrequently occurs with entire absence of vomiting or purging, but with an extraordinary amount of **prespiratoy** exudation, or with spams that speedily cause death—that in spasmodic cholera the anti-spasmodics are generally found useful—that not a few cholera patients die from want of what is called reaction, even where there was no appearance of decomposition of the blood or deprivation of serum in the blood vessels, we must come to the conclusion that the first impression of the cause of cholera is sometimes made upon the blood and at other times upon the nervous system, while in more rare instances it may impress both the blood and the nerves at the same time.

"perspiratory"? —*Ed.*

The question as to why the serum or watery portion of the blood should escape into the stomach and bowels to produce the rice-water discharges may be answered by referring to the inevitable result of severe congestion of the lymphatics, as is also shown in the pouring out the serum upon the surface of the skin in the excessive perspiration which is sometimes present.

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Tbe serum of the blood dissolves the epithelial cells of the alimentary canal and these dissolved and partially dissolved cells are what gives to the fluid its peculiar or ricy appearance.

Is the cholera miasm, or *sui generis*, independent of the miasms which produce other epidemic diseases?

Many physicians and natural philosophers have held that the cholera miasm is but the product of the receding of some other form of disease or rather a modification of a miasm which had produced some other form of disease, and they have endeavored to sustain this position by referring to the fact that an epidemic of cholera is usually preceded by an epidemic of a different character. Others have considered that it possesses an individual and independent character, unaltered by changes and unaffected by climates, everywhere acting upon the alimentary canal and on which, therefore, it must make its first impression.

Those who entertain this latter view consider the cholera miasm a peculiar miasm, and call the cholera epidemic *the epidemic of epidemics* or the

producer of epidemics, and the cholera miasm the miasm of miasms, or the producer of miasms.

As has before been remarked, all miasms which produce epidemic diseases have somewhat in common, but each also has something peculiar or specific, and hence while the cholera has many characteristics manifested in other epidemics, that it has an individuality of character and an individuality of cause cannot well be denied.

The common characteristics which we observe in epidemics arise from the fact that all miasms are of telluric and atmospheric origin, and that all miasms in course of time have their power and influence modified and changed. Yet they all nevertheless manifest essential peculiarities of character and produce by a specific process each its own individual disease. For instance, one miasm will produce scarlet fever, another measles, and another cholera. If there is none of the specific miasm there will be no measles, or no cholera, as the case may be. Neither can one miasm produce another disease, for measles never produced cholera, or cholera measles, or anything else but cholera.

This is the necessary result of the peculiar and specific character of each individual miasm which possesses its own specific power and disposition. "*Quod libet miasma proprium generationes suae typum in agendo sequitur.*" pg. 392

In this as in every branch of the natural sciences, the conclusions adopted may prove so clearly the hypothesis to be correct that it ceases to be simply a hypothesis but may claim to be classed as an established scientific truth. As in the natural sciences, so in medicine, the inquirer after truth must at times adopt a hypothesis for the explanation of the phenomena which he observes; and in this instance the explanation which the hypothesis of a cholera miasm gives to the phenomena of the disease comes near proving that to be the true origin of the epidemic.

So also the later advances made in the science of chemistry have nearly proved the cholera miasm to be a reality and not merely a hypothesis. Dr. Horn of Munich, obtained from the atmosphere *Ozone*, or a negative electric body, and another body, *Todsomone*, which has been found to combine in the body with carbon and by the combination to produce effects upon the structures very similar to the effects produced under similar circumstances by the cholera miasm. I would not assert that these discoveries prove beyond cavil that the cholera miasm is Todsomone, but this much is certain that we may feel sure

that observation will establish many practical truths by accepting this hypothesis, and will also stamp upon it the seal of truth.

Does the cholera miasm, as many suppose, make its direct impression upon the stomach and intestines?

The circumstance that the first symptoms of cholera are vomiting and purging, and other indications of derangement of the alimentary canal goes to favor the idea that the mucus membrane of the prima vie is the point at which the reception of the miasm first occurs and from which it progresses farther into the organism. In opposition to this idea is the fact that *spasmodic* cholera, as was observed in thousands of cases in the epidemic of 1831, frequently destroys the patient before vomiting or purging presents itself; and also the processes of vomiting and purging removes from the system a large amount of fluid which chemical researches have proved to be changed blood serum, thus proving conclusively that the vomiting and the purging are *secondary*, and sequela to the primary changes which had occurred in the fluids. So also is shown that the cholera miasm must have impressed several parts of the system and not alone the alimentary canal. The nervous system, the blood, the lungs, and the ganglionic system all bear evidence of the presence of the cholera miasm, and that it must come in contact with all these structures. pg. 393

Neither may we loose sight of the fact that cholera has often been produced by what is styled the *contagium psychicum.* It is a well-established fact that many die through a fear of the disease, and particularly through the influence of the sight of a cholera case upon an impressible person. Many doubtless are thus led to suffer from the epidemic who otherwise would have entirely escaped it.

With regard to which is first acted upon, the blood or the nervous system, I think the true answer is that in this regard there is a great diversity in the different cases, but that in many cases both the blood and the nerves are simultaneously impressed.

Has the cholera miasm and the Asiatic cholera undergone any alterations in its original nature and character in its transit? Does it always present forerunners of epidemics? Has it always also been followed by other forms of epidemic disease as it has passed away?

The cholera miasm has certainly *not* undergone any change but remains ever the same in nature and quality as when it started from the Punjaub as is shown by the unaltered and specific character of the epidemic in all climes and seasons, without any regard to the state of the weather, uninfluenced by heat or cold, or dryness or moisture. But no one will deny that the cholera miasm and consequently the disease which it produces does loose from time to time apart of its potency and assume a more mild and manageable form, for the history of its various epidemics has fully established these facts. But the succeeding epidemic is found to equal in intensity any former, and the one of the year 1855 in the month of May, was more intense and destructive than any which had preceded it.

In most instances preceding an epidemic of cholera, other epidemics have been observed as preceding this, as intermittents, diarrhœa, dysentery. So also after the epidemic of cholera has passed by, have epidemic forms of disease appeared, as typhus, influenza, etc. These observations have led to the opinion that the preceding diseases might be considered as the forebodings of cholera, and the succeeding as the sequelae of the disease.

I have already pointed out the common sources from which all miasms arise and hence the connections of these various forms of epidemic diseases can be explained without our concluding there is anything more in common with these miasms than simply a relationship of origin.

[to be continued.]

Observations on the Uses of Sanguinaria Canadensis.

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by ABR'M. LIVEZEY, A. M., M. D.

In several medical journals I have taken the liberty to call the attention of the profession to some of the uses of our indigenous medicinal plants, and in the present communication I beg leave to offer some remarks upon the medicinal value of the Sanguinaria—a plant incident to all localities and the root of which is easily gathered.

Without prejudice to the use of any other article I feel warranted in saying, from no little experience, that this plant with the aid of podophyllin will exert

a more happy influence in all hepatic derangements—both as a cholagogue purgative and as an alterative—than any combination of calomel.

Possessing undoubted nauseant, sedative and alterative properties, blood-root will in cases of slight inflammation of the biliary organs, or congestive states of the same, or where a species of spasmodic action pervades those structures, give prompt relief; and where torpidity exists and the physician thinks that the stimulant action of some mercurial is indicated he need only combine a minute portion of the podophyllin to obtain all the advantages that are supposed to be derived from calomel.

Sanguinaria gives a decided aid to the action of podophyllin or any other cathartic to which it is added. It is, in the form of tincture, an alterative expectorant in chronic bronchitis. It is valuable in chronic hepatitis combined with ext. taraxicum and ext. podophyllum, jalap or rhei, if obstinate constipation exists. Tinct. Sanguinaria can with advantage be substituted for wine of antimony in the *brown mixture* and wherever the wine of antimony is used. As a substitute for the compound cathartic pill the following combination—already published will generally prove more satisfactory:

℞. Podophyllin, gr. i.,
Leptandrin, " iv.,
Sanguinaria, " ii.,
Ext. Taraxicum, q. s. Misce. ft. pil. No. iv.

Two or three for a cathartic; ½ to a whole one night and morning as a hepatic alterative.

A graduate student of mine, Dr. Rice, late resident physician in the W. C. Infirmary of Philadelphia, had a case of obstinate constipation which had persisted four weeks—so said the patient, an Irish woman, when she presented herself at the clinic—and in twelve hours time she had a free alvine evacuation from the use of Sanguinaria, well triturated with white sugar and given in small doses every two hours. Dr. R. is fully persuaded that blood-root is an admirable adjuvant in all prescriptions for the restoration of healthful function in the liver, and especially when constipation is coincident.

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NOTE.—Perhaps no indigenous plant has attracted more attention from those physicians who are accustomed to notice the living specimens of materia medica as they spring up in the woods and fields than the one under consideration. The early appearance of its beautiful and pure blossom, the dark blood-color of its fleshy root, its marked taste and its prompt action on the system all lead to its obtaining the attention which has been bestowed upon it.

A trial of its therapeutic virtues has led those who have made use of it to speak of it in the highest terms of praise and to earnestly recommend it to the favorable notice of the profession, and yet, strangely, it has never obtained that prominent position in the list of medicines all its advocates think it deserves.

Nearly every writer on Botany and Materia Medica in our country has delighted to give a full description of this plant and to speak highly in praise of its beauty and usefulness. Among the earlier writers who have made mention of it Dr. Shoepf says that fifteen or twenty grains of the pulverized root will produce powerful emesis, but that it must not be given in the form of a powder as thus it is apt to produce great irritation of the fauces. He prefers a decoction or the pill form. Merat says it is useful in gonorrhœa. Shoepf also mentioned the value of a weak decoction of the root in gonorrhœa and refers to the fact that Golden had found it useful in jaundice. In doses sufficient to produce emesis it was found to dislodge worms from the stomach. Thatcher, in his Dispensatory, speaks of the use made of it by Dr. Dexter in doses of one grain of the powder or ten drops of the saturated tincture, as a stimulant and diaphoretic. Dr. Downy was of the opinion that the dose as recommended by Drs. Shoepf and Colden was larger than could be administered with safety. In speaking of the value of the root in jaundice Dr. Thatcher says it was believed to be the chief ingredient of the quack medicine known as *Rawson's Bitters*.

The younger Barton thinks that the only form in which the blood-root should be used is that of a spirituous tincture. In this form he used it in connection with the tincture of bitter-plants as a tonic with great satisfaction. He also found it useful as a wash for old indolent ulcers and sores with hardened
pg. 396 edges and an ichorous discharge. He had also used the powdered root as an application to fungoid growths and nasal polypi. Bigelow, and Dr. Smith also used it for the same purpose. So also Dr. Shanks and Dr. Israel Sterling, according to Thatcher, used it in place of digitalis in coughs and pneumonic complaints. Dr. Darwin has used it in peripneumonia trachealis in the form of a decoc-

tion and from the benefit thence derived Dr. Barton thought it must be a useful medicine, particularly in cynanche maligna, in cynanche trachealis and other similar affections.

Drs. Barton and Downy said that the *leaves* of the puccoon as well as the seeds are possessed of a *narcotic* power similar to that of the seeds of the stramonium and that they had produced dangerous symptoms.

In 1831 Daniel B. Smith published in the *Journal of the Philadelphia College of Pharmacy* a dissertation on this plant, in which, he gives its natural and botanical history and speaks of the experiments made by Dr. Dana on the root in 1824, when the *Sanguinarina* was probably first obtained.

Dr. Tully has carefully examined the medicinal powers of blood-root and thinks it is therapeutically allied to squills, seneca, digitalis, guaiacum and ammoniacum.

More recently Dr. Williams, formerly of Massachusetts but now of Illinois, has written several valuable essays on the Sanguinaria, but unfortunately I have lost the reference to them and I only remember that he considered it one of the most valuable if not the most valuable of all the North American plants.

Dr. Thom of Ohio, in a communication to the *Western Journal*, says that for two years he had been closely engaged in observing the effects of this remedy in various diseases and he concludes that it is a *sedative* of no ordinary powers. For reducing the force and frequency of the pulse without prostrating the system he considered it one of the most efficient remedies. He also styled it an *alterative* with a marked influence on the liver and the glandular system generally. He employed it in hemorrhage from the lungs, particularly in those cases where the hemorrhage appeared to be caused by vicarious menstruation, and considered it of more value than any other agent he had used.

Dr. M'Bride in the *South. Jour. of Med.* said he considered this plant eminently serviceable in those disorders of the liver where the secretion of the bile is either suppressed, deficient or vitiated. In imperfect convalescence after bilious fever he says, "the puccoon is the best remedy." As an emmenagogue he thought highly of it. He recommended it as a substitute for mercury.

Dr. J. L. Mothershead used it in dyspepsia in the form of pills, giving from one to three grains at a dose three times a day. In troublesome cough he found it valuable. He also used it satisfactorily in tinea capitis, tetter and other forms of skin disease in the form of powder or strong tincture on the affected part. pg. 397

He said: "Of all the articles in the Materia Medica, next to mercury and its preparations, none in my opinion can compare with it in its powers to excite the action of the liver, and it has the advantage of the former in its capability of being used at all times and continued without producing any of its unpleasant results."

Dr. Bard in his Inaugural Dissertation confirmed the statement of Dr. Downey in regard to the narcotic effect of the seeds and speaks of using the root in croup, pneumonia, whooping-cough, phthisis and jaundice. Dr. J. Allen of New York, says it powerfully promotes diaphoresis in inflammatory rheumatism. Dr. Downy says that the leaves are used in veterinary practice in Maryland for the purpose of facilitating the shedding of the hair of animals. Dr. Griffeths has also given it to horses for the cure of bots, one or two roots serving to produce a cure.

Dr. Branch, of South Carolina, thinks a decoction of the root of more value than any other single remedy in croup. He denies that it is possessed of any poisonous properties.

I have not been able to obtain the Inaugural Dissertation of Dr. Henry West, of Belmont Co., Ohio, upon the use and value of this agent, but evidently he must have placed a high value upon it to make it the subject of his remarks.

Recently Dr. J. W. Fell has been permitted to make a trial of his mode of treating cancer on the patients of the Middlesex Hospital of London and as he had not previously made known the agents he had used the *London Lancet* condemned the secrecy which had governed him, and finally Dr. Fell was led to publish a work on Cancer and its Treatment in which he said he had used the "bruised bloody pulp of the white-flowering puccoon."

The formula used by Dr. Fell differs from the chloride of zinc paste of Dr. Papengurth and Prof. Hancke of Breslau and Dr. Canquoine of Paris, from the addition of the blood-root to the ingredients used by these surgeons in the treatment of cancer. The formula is as follows:

℞. Sanguinaria Canad., ʒ ss, vel ʒ j.,
Zinci Chlorid., ʒ ss, vel ʒ ij.,
Aqua, f ʒ ij.,
Tritic. Hybern. Sem. pulv., q. s.

M. f. paste as thick as treacle and apply to the cancer,

For years this has been a popular remedy for the purpose of destroying granulations and other morbid growths, and it is more than probable the blood-root which has been added to various ointments and applications which have been used upon cancerous affections has done much toward effecting the cure. pg. 398

A reference to the use of blood-root in the cure of cancer is now causing considerable discussion in various sections of the country, particularly in New England, and where much is being said in regard to who was the physician who first used it for the cure of cancer. My own opinion is that it was in use by the people and the *country* physicians long before we have any record of its being thus applied.

From the very imperfect abstract here given of a few of the articles that have been published in our periodicals on the use of this root, we are warranted in drawing the conclusion that it is a very valuable medicine and should be introduced into more general use. But doubtless one reason for its neglect is the fact that the root rapidly looses its value by age and if kept more than one year may become nearly worthless.

The tincture and other preparations should be made from the root as soon as possible after it is gathered and not from the old and nearly worthless specimens usually sold by druggists.

In regard to the preparations sold under the names of *Sanguinarin* and *Sanguinarina*, although I have had frequent letters of inquiry addressed to me, I cannot give any satisfactory answer. I have no means of knowing what these preparations are or how manufactured, and of those who have used them I have never been able to obtain any evidence of their character or value as therapeutic agents, but a friend of mine who has manufactured these articles and sold them in considerable quantities has told me, that as the result of his own observations and the observations of those of the profession who, had bought and used them, he was fully convinced they were of even less value than the pulverized root. I consider it a duty I owe to the readers of the JOURNAL to present these facts.

If those who manufacture these agents would let us know enough about them to warrant us in making a trial of them, and if those who have used them would carefully observe their action and notify us of the result, soon the readers of the JOURNAL would be in the possession of the required information. In the

present state of the case the only answer I can give is that I have never used them and know nothing positive about them. C.

Extractum Nicotianiæ Rademacheri.

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by THEODORE C. MILLER, M. D.

I HEREWITH present a notice of an agent which to me is possessed of extreme value. It is the *extract of the Nicotiania rustica*, as prepared by the late Dr. T. G. Rademacher.

It is not prepared from the dry but from the fresh and green tobacco plant. In preparing the extract it is necessary that *immediately* and without delay, after the leaves have been pulled they must be pressed so as to force out the juice and that juice evaporated to the consistency of an extract. When prepared in this manner the extract has none of the taste of the dried tobacco leaves; but if the leaves are pulled only a few hours before the juice is expressed, then the extract will have a taste more or less like that of smoking tobacco, in which case it is not fit for therapeutical purposes. I have ahvays found it best to have the leaves pressed at once on being pulled; and I have always prepared it according to the directions of Rademacher, from the Nicotiania rustica, and not from the Nicotiania tabacum. Rademacher's extract is one of the best remedies in genuine cough of the lungs, and for that I can wdth a clear conscience recommend it to the readers of the COLLEGE JOURNAL. It is a remedy for which probably I could not find a substitute.

Rademacher gave it in doses of from one half to two grains, and repeated it several times a day. It may be made into a pill with the powdered marsh mallow root. It is a quick and safe remedy in a particular diseased condition of the lungs for which I am not able to give a name, but the want of the *name* is no loss to the practical physician, who must be governed by the nature of the disease and not by its nomenclature.

That we can, with the extract of the fresh leaves of tobacco, cure an inveterate genuine lung cough, and thus prevent pulmonary tuberculosis, in my mind does not admit of a doubt, provided the cough is kept under the control of the remedy. But there are forms of lung cough which this extract will not control, and in those cases I would recommend a trial of the *Stibium Sulphure-*

tum Auranticum, as mentioned in the COLLEGE JOURNAL for June, page 351. Rademacher truly says: "In general we must be guided in our minds in the practice of our art, by the following fact: The diseases are not governed or changed in character by the ideas and opinions of the physician, but the opinion of the physician must be governed by the nature of the disease."

That the extract of tobacco has a powerful controlling influence over the genuine lung cough, serves as a diagnostic as to the real nature of the disease. If the cough originates from the lungs it will be benefitted by the extract, while if it owes its origin to a disease of some other part of the system, the extract may fail of benefitting the patient. But there may be coughs which in reality are caused by some diseases of the lungs, and yet the extract may not prove beneficial. For instance, a cough may be caused by a node, or from a closed or an open abscess in the lungs, or from the pressure of a fractured rib upon the pulmonary tissue and yet the extract would not produce a cure. The extract has a favorable influence upon idiopathic but not on secondary coughs. With opium we can often relieve secondary or sympathetic coughs. We do not with that agent obtain a cure, but we do obtain relief from the cough, and moderate it or pacify it. The extract of tobacco is not as active as opium to *allay* a cough, but far more powerful to cure it when of the genuine lung origin. pg. 400

IDIOPATHIC BLEEDING OF THE LUNGS. When I speak of bleeding of the lungs I mean to be understood that form of the disease which is commonly called *spitting of blood*, where a greater or less quantity of clear blood, or blood mixed with phlegm, or phlegm streaked with blood, will be raised from the lungs. The extract is valuable in these cases, but may not be depended upon in *Pneumorrhagia, or Apoplexia pulmonalis*, in which latter form of disease we must resort to the use of allum and ice internally and cold wet cloths to the surface of the chest, and to other appropriate remedial measures.

I would here remark that this preparation will not produce the vomiting and purging which follows the administration of the dry tobacco, and I have never used the dry tobacco as an emetic or an injection, as I find the Lobelia inflata an equally efficient remedy.

I was called a few days since to see a patient where many other remedies had been tried by three eminent physicians who had attended on the case, without avail. The patient had been sick quite a length of time but owing to my recent illness and the distance from me I could not treat it. The case presented

the characteristics of consumption, a harrassing cough, with bloody sputa, etc. As I was unable to visit the patient I was consulted by letter, and had ordered inhalations, and directed the Wild Cherry, Lycopus Virginicus, and Lobelia combined with Ipecacuanha, without benefit. I used the Lobelia, from having found it of great value in cramps and affections of the chest, and particularly in phthisis pulmonalis. For these purposes, and to relieve the dry harrassing cough and tickling of the throat, it is in use by many German physicians.

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As I was at the time out of the extract of tobacco I made a trial of the Lobelia, but I obtained some from my brother and about two weeks since I commenced its use. In six days the cough and the expectoration entirely ceased. I have since visited the patient and although the symptoms are so much relieved, auscultation does not promise much for the final recovery of the patient. Too many persons had prescribed, and the lungs are too much diseased to allow much hopes of a permanent cure; but this case illustrates the power of the agent.

I am the more urgent to induce the profession to make a trial of this extract, as I think it is nearly or quite unknown to the physicians in this country.

AQUA NICOTIALÆ TABACUM SPERITUOSÆ RADAMACHERI.

This preparation is recommended highly in affections of the brain accompanying fever, in *rheumatismus acutus fixus at vagus*, in other affections of the brain and spinal marrow, in cholera morbus, and in cholera Asiatica.

To prepare it: Take of choice fresh green leaves of Nicotianiæ tabacum eight pounds, and cut them finely. Add of the best alcohol, by weight one and a half pounds, of distilled water as much as is necessary to distill over eight pounds (by weight) of the water.

The leaves are to be cut and the distillation effected immediately after they are pulled, with great care that there shall be no over-heating of the liquid, as, if the liquor be over heated it will have a very disagreeable odor of tobacco, which it does not have when the water is properly prepared.

Rademacher uses this water in every stage of the Asiatic cholera. In the earlier stages he gave the following:

℞. Aqua Puræ, f ʒ vij.,
Soda Acet., ʒ jss.,

Aqua Nicotian., f ℥ j.,
Gumi Arab., ℥ ss.

M. Dose, one table-spoonful every hour.

The great majority of cases treated with this mixture recovered immediately from the attack. In those cases where the attack was followed with a typhoid condition, he gave:

℞. Tinct. Ferri Acetici, f ℥ j.,
Aqua Nicotian., f ℥ j.,
Aqua Puræ, f ℥ vj.,
Gumi Arab., ℥.

M. Dose, one tea-spoonful every hour. pg. 402

With this treatment the patients all recovered after a longer or shorter period.

NOTE.—The formula for preparing the acetic tincture of iron is to be found on page 351 of the COLLEGE JOURNAL.

Pleuritis, Latant.

by C. E. WITHAM, M. D.

PLEURITIS is a disease which often presents obscure, important and interesting complications, taxing the utmost skill of the experienced physician in tracing the precise bearing and extent of the morbid action established.

The heart, lungs, bronchia and liver are often implicated in this disease. Asthenic pneumonia, and chronic and latent pleuritis have many common symptoms. It is stated that pleuritis is more prone to produce tubercular disease than pneumonia is, and it is thought by some authors that the absorption of pus into the blood may explain this rather singular fact. In the treatment of disease our object should be to remove morbid action by the most simple and effectual treatment the case will admit of. If the following report should be the means

of stimulating the young practitioner to a more thorough study of thoracic diseases I shall be amply rewarded.

On the 11th of June, 1856, F. W., a lad 14 years of age was presented for my advice. He was of a sanguine temperament, and a twin brother. I had never seen him before, but from his father gained the following history of his case. Five months previous to calling upon me he suddenly lost the power of speech; did not know that he had previously suffered from cold or exposure. The loss of speech was the first symptom of disease he could recollect and this was not preceded by any very marked indications of hoarseness. A low, hoarse and painful whisper was the result of all his efforts at conversation. This condition continued for one month when to his surprise and great joy he found himself complete master of his vocal organs and congratulated himself on so strange and unexpected a recovery. He said that while making some slight exertion he felt something give away in his chest and immediately he could talk as well as ever. At the end of one week he was again deprived of speech in the same unexpected and sudden manner. His physician after inspecting his throat, but making no other examination, prescribed a gargle of "pepper tea" saying it would soon effect a cure; but after a trial of several weeks this prescription was discarded, as no change had resulted. Lancinating pain would occasionally be felt in the chest, slight cough, expectoration streaked slightly with blood. He continued to perform light work and had not been confined to his bed. I found him presenting the following symptoms five months after the first appearance of the disease.

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The mucous membrane of the pharynx presented a pale and debilitated appearance; the chest inclined forward, the body assuming a stooping position; great tenderness of the spine from the first cervical vertebra to the last dorsal; pressure over the lungs, liver, stomach and spleen gave pain. In short no part of the chest nor abdomen could be percussed without revealing deep-seated tenderness. The skin was dry, pulse quick; there was much dyspnœa with abdominal respiration. Percussion of the lungs gave rather a dull sound. Bowels torpid. I diagnosed the disease to be Latent Pleuritis complicated with chronic inflammation of the larynx which gave rise to the Aphonia. As the patient was of a strumous diathesis and the disease of long standing I doubted the efficacy of treatment but advised it and took charge of the case on the 12th of June.

I first ordered morning bathing to be practiced daily, the water used to

be impregnated with chloride of sodium and bicarbonate of potassa. Internal treatment:

℞. Podophyllin, ʒss.,
Capsicum, gr. X.,
Ext. Taraxicum, q s.

M. f. Pill, No. X. Take one of these pills morning, noon and night until the bowels are freely moved, then take but two a day.

℞. Comp. Syr. Stillingia, fʒiij.,
Capsicum, gr. X.,
Iodide of Potassium, ʒj.

M. Take one teaspoonful four times a day. To test the progress of the case I saw the patient daily. I discovered no change until the third day; the bowels were then active, less tenderness about the cervical vertebra, could whisper with less pain and more distinctly. On the fourth day still more improved. I ordered the same treatment continued and on the next day the patient recovered full power of speech and could talk freely and without pain. He continued to improve and on the tenth day of treatment I could discover no abnormal symptoms. Percussion over the abdominal and thoracic viscera was no longer painful; no tenderness of the spine could be detected. I now discontinued the former treatment excepting one pill to be taken each day, and prescribed the following:

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℞. Prussiate of Iron,
Hydrastin, āā ʒss.

Mix. Make 15 powders, two to be taken a day. The patient felt well and returned home, and now nearly one year has remained well as usual.

What Influence has the Moon Upon Disease?

by COMELY JESSUP, M. D.

I WISH to ask your opinion and procure, if possible, the result of the observations of your readers, relating to the influence (if such influence exist), exerted by the moon upon disease. I have been of the number who look upon the lunar influences except such as may be attributed to the known laws of gravitation as entirely fabulous, but several instances occurring within the sphere of my observation, which have indicated the existence of some hidden agency, a few of which have been distinctly marked, have awakened a desire to see the matter thoroughly investigated and the truth or falsity of lunar influence fairly demonstrated. The following are a few of the more marked instances of apparent lunar periodicity which have fallen under my observation.

CASE 1. Mr. C., aged perhaps 45, has been subject to epilepsy for the last three years. About the time of the change and full of the moon he will have from three or four to eight or ten convulsions. At other times he is free from them, except occasionally about the time of the first and last quarter.

CASE 2. T. I., aged 72, was attacked some four years since with malignant erysipelas, accompanied at first with paralytic symptoms, which, together with a severe attack of "Doctors,"—though he survived them all—left him in a condition from which he has never recovered and never will. The most prominent features in his case now are pain in the back and head, which is remittent in its character, being most severe in the early part of the day; nervousness, constant trembling of the hands, or rather the peculiar shaking characteristic of paralysis, to the extent that he can with difficulty feed himself; and occasional attacks of general weakness and disposition to syncope. These **symptems** are all much aggravated at the time of the moon's changes.

"symptoms"? —*Ed.*

CASE 3. A. E. S., aged 5; troubled with ascaris vermicularis at the time of the new and full moon, which were during the intervening space of time quiescent. This case would not have excited suspicion, inasmuch as there seems to be frequently a periodicity in their actions, but taken in connection with other cases it is a straw which indicates the quarter from which the wind blows.

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Now the question is, does the moon during its various phases exert various influences which though unperceived by the robust constitution of perfect health, make themselves felt to the sensitive system of the invalid, or are these merely striking coincidences? These are questions of interest to the Physiologist and medical Philosopher, merely as significant facts, but doubly so to the practitioner to whom a knowledge of every influence brought to bear upon

those under his charge is essential.

With a hope that others may be induced to make known the result of their observations, I report these cases.

Human Blood a Styptic(?)

by O. VAN BUSKIRK, M. D.

I WISH to communicate a few thoughts upon a case which came under my observation a short time ago, in which I employed human blood as a styptic with the most gratifying result. To you this may be no new thing, but to me it is, and it may be to many other junior members of the profession. From this consideration I thought I would write you a brief account of the case and the manner in which I employed it.

The case was a lady from whom I extracted a tooth (the first molar), and it was rather difficult to draw, but it came out whole and without doing any perceptible damage to the jaw. The hemorrhage was not very profuse at the time; not more than usual. When she left my office she seemed as well as usual and continued so for two days, at which time a profuse hemorrhage took place from the cavity in her jaw. By means of a decoction of black-oak bark she checked it for about twenty-four hours when it began again worse than before. I was then sent for and found her quite weak and sick at her stomach. I applied geranin, tannic acid, etc., all to no effect. I then took about two ounces of blood, placed it over the fire and as soon as it came to the boiling point the solid constituents of the blood coagulated, and left the aqueous portion clear and limpid. I then poured off the water and left the other over a slow fire until it assumed a thick, jelly-like form. I took a small lump of this and filled the cavity and placed over it a small wad of cotton wadding and directed her to close her jaws so as to keep the remedy in **[TRANSCRIPTION IS INCOMPLETE]**