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LECTURES.

THE HEROIC TREATMENT OF IDIOPATHIC PERITONITIS.

A CLINICAL LECTURE DELIVERED IN THE HOSPITAL OF THE UNIVERSITY OF
PENNSYLVANIA.

BY H. C. WOOD, JR., M. D.,

*Professor of Materia Medica and Therapeutics, and Clinical Professor of Nervous Diseases in
the University of Pennsylvania.*

GENTLEMEN, — I am going to step out of my own special department, that of nervous diseases, to-day, and lecture to you on the case of Mr. L., one of your own number, who has been very sick for the past two or three days from an unusually severe attack of peritonitis. I hope that the interest of the case will atone for the liberty I have taken in thus going out of my proper sphere as a clinical teacher.

Three days ago Mr. L., a medical student, was suddenly seized with the most violent purging. The discharges were free and watery, and so constant that he was forced to remain at stool for two hours. This attack began about midday. In the evening the patient suffered from intense abdominal pain. By the following morning this pain had become unbearable. The tenderness below the umbilicus was excessive. There was free vomiting.

Now a great many high authorities contend that there is no such thing as true idiopathic peritonitis. In positive opposition to this view I hold that I have seen quite a number of idiopathic cases in my own practice. I know no reason why the peritonæum should not share the fate of the other serous membranes.

I saw the patient on the morning of the second day, and was quite puzzled in making out my diagnosis. The first questions I put to myself were: Is it a case of idiopathic peritonitis, or is there some other cause for the symptoms? Can they be the result of the passage of a biliary or renal calculus? After thoroughly sifting all the possible explanations I came to the conclusion that it was a case of enteritis which had extended to the peritoneal covering and brought on peritonitis. The seat of the pain was certainly not that which marks and accompanies the passage of a renal or biliary calculus. The most intense pain was

situated low down in the umbilical region. This pain did not run towards the back or penis, as is the case in renal calculus. Moreover, in these diseases I should not have found such intense local tenderness. There was a possibility of intussusception, which does occasionally occur in adults, but such an explanation seemed improbable, for (1) there was no passage of blood by stool, (2) there was no suppression of urine, and (3) there was no local tumor to be found. Could it be an instance of typhlitis? The tenderness was not greater on the right than on the left side, and the locality of the pain was not that of typhlitis. Another strong point against the supposition of the existence of any of the above diseases was that none of them begin with free purging, as has been the case here. Free purging is invariably a sign of some bowel complication.

I had some time ago under my care a woman who had been suddenly seized with the most violent cramping and spasmodic pain in the abdomen. The only thing which gave her relief was pressure. Her whole belly was exquisitely tender. All these symptoms had been the result of some undigested food. The irritative inflammation set up by this food had stopped all the secretions of the intestines, and had then extended to the peritonæum and caused serious inflammation there. I explained the present case to myself in the same way. The violent, paroxysmal, persistent pain and tenderness made it clear to me that, whatever had been the primary cause of the attack, I had to deal with a well-marked instance of peritonitis.

Now as regards the treatment I employed. This has been my fifth case of idiopathic peritonitis in private practice. I have seen many cases of peritonitis in puerperal women and in the Almshouse Hospital. In the Almshouse Hospital everybody is utterly broken down in constitution, and so no criterion of an acute disorder can be had there. In all of the five cases above mentioned I have had complete cures. My treatment is nothing new; on the contrary, it is very old. I remember my uncle, Dr. George B. Wood, saying that he never lost a case of peritonitis in an adult, and the reason he gave was that he always bled his patients from the arm until they fainted, and then put one hundred leeches on the abdomen. I am proud to say that I am a thorough believer in the same plan of treatment, antiquated as it may appear. In my first case, that of a woman, as I was not called in until the disease was of many hours' standing, I found bleeding unnecessary, but I did put on as many leeches as the abdomen would hold. In my second case I also leeches very heavily, it being too late to bleed. In my third case I drew thirty-two fluid ounces by leeches. The patient's cheeks grew deathly pale, her pulse was reduced, and she was left weak and relaxed, but made an excellent recovery. So with the fourth case. In my fifth case the excessive purging rendered the subject scarcely a

fit one for venesection. I therefore took away only fifteen fluid ounces, thinking that the purging had already weakened the man sufficiently. I have never, you see, had cause to regret having bled my patients copiously. It makes very little difference whether you take the blood from the arm or from the abdomen, provided you draw enough to make a profound impression.

You all know that in surgical practice a large number of local inflammations are subdued by obstructing their supply of blood; the inflammation subsides so soon as the passage of blood is prevented. I do not see why I should not apply this precise principle in cases of peritonitis. For just as a fire goes out when you take away its fuel, so venesection must have, and in my experience has had, a most salutary effect. I have said that it makes but little difference whether you take the blood from the arm or abdomen; taking the blood from the abdominal walls should certainly give a more direct effect, though this is not always the case.

What is to be done after venesection? I take my stand on the old theory that calomel has power to modify inflammatory action. In cases of iritis the microscope has positively revealed the absorption of the lymph following its use. We know that calomel renders the blood less coagulable, and stops the production of fibrine. In inflammation there is a great tendency to the production of fibrine of a low order, which is very likely to coagulate. I am, as you see, a most entire believer in the antiphlogistic properties of calomel,—not indeed in inflammations where there is too little fibrine, but in all inflammations where it is in excess.

As peritonitis is an exceedingly severe disease, and means death in ninety-nine out of a hundred cases unless they are treated promptly and efficiently, mercury, to do any good, must be taken in decided doses. In my fifth case, referred to above, I gave half a grain of calomel every hour. In this case I am giving one quarter of a grain every hour.

In connection with the calomel opium is undeniably of great value. We do not know exactly how the opium does good, except that as horrible pain breeds physical exhaustion, so opium puts a stop to this pain and to the exhaustion and restlessness accompanying it. Opium may therefore be said (1) to prevent exhaustion and (2) to cause quiet. I think, indeed, that it does even more by influencing beneficently the inflammatory action. If you give opium at all in peritonitis, give it in large doses. Use enough to keep the patient on the verge of narcotism. Opium, like every other medicine, has no fixed dose, but must be administered until its effects are noticed. Never administer opium in the form of hard pills, for the pills collect, unsoftened and unactive, in the alimentary canal, until the whole mass is suddenly dissolved and thrown

into the circulation. I therefore advise its use in the liquid form, and in repeated small doses.

The ability to stand large doses of opium in peritonitis is wonderful. In one of my cases *seventy-five* grains of solid opium were taken daily for five days, and the patient made an excellent recovery. In another instance twenty drops of deodorized laudanum were repeatedly injected into the rectum for a long period of time. As the disease wears out, the ability of the system to stand large doses subsides, so that the quantity must be gradually diminished.

Dr. Binz, in his latest work on therapeutics, makes the point-blank assertion that no one has satisfactorily proven thus far that counter-irritants do good in disease. In reply to this statement I desire to advance the argument that no one who has had a severe stomach ache will say that he does not believe in counter-irritation. Therefore by all means use blisters in peritonitis, but never use blisters in the early stages of the disease.

The first thing to be done when the leeches have been removed is to apply poultices; whether they are hot or cold makes little difference. Where there is a very marked tendency to feverishness it is perhaps better to apply cold poultices. If the abdomen is too tender to bear the weight of the ice-bag, apply light flannel cloths wrung out of ice water. In this case I have been using light cloths wrung out of hot water. A warm-water dressing may act merely as a local derivative to the skin, but I think it highly probable that some of the warm water oozes through the intervening tissues into the abdomen, and so acts directly as a soothing agent upon the inflamed peritonæum. Do not, however, understand me as making a positive assertion with regard to this point.

That warm and cold local applications do most certainly affect the neighboring and subjacent tissues to a considerable depth I have amply proven by numerous experiments upon animals. The application of ice to the head of a cat, for example, will affect the base of the brain very perceptibly. So, too, as regards external applications of either moist or dry heat.

After the abdomen has been thoroughly poulticed for two or three days blisters may be used, provided the temperature of the body has not remained high; that is, a blister may be applied at the end of three days if the temperature has fallen in the mean while. Do not put on a small blister. I was talking with my uncle, Dr. George B. Wood, the other evening about this very case, and he said that if he were in my place he would order a blister ten by ten (inches). I have ordered a blister eight by ten. In one of my first cases pus had formed in the abdomen, and I blistered so freely that the woman got tired of me and called in the services of an old Indian woman, who told her that her

liver strings were loose. Her treatment, like mine, consisted in persistent blistering. As soon as one spot of new skin showed itself the old woman would clap on another blister. After some more experience of the Indian doctress the patient determined to have me back again. I saw that though the herb woman's diagnosis was faulty her therapeutics were good, and by sticking to the blisters for some time longer I succeeded in curing my patient entirely.

How does quinia act in peritonitis? you will ask. There is a very prevalent belief that large doses of quinia are of service in this disease. I have seen most remarkable results from its use in puerperal peritonitis. There it does good by its action on the septic material, expelling it by causing contraction of the womb. Quinia might be of advantage in some cases of idiopathic peritonitis. Generally the stomach is not strong enough to bear it; such has been the case here.

As regards food, the less you give a patient in the first few days of an attack the better. When you do begin to feed, remember that you are feeding a patient whose abdominal contents are all glued together with adhesive lymph, and also remember that if these agglutinations are torn apart there is great danger of hæmorrhage or collapse. The food which should be given after the first acuteness of the attack has passed off must be that which leaves the least residuum of undigested matters, and therefore causes the least amount of peristaltic action on the part of the intestines. Milk in repeated small doses is the best article of food possible. After the end of a few days you may give some solid articles. If there are symptoms of exhaustion late in the course of the attack give beef tea as a stimulant. Alcohol is not only powerless but even dangerous in the early stages of the disease. A few doses of brandy in the first days of an attack of peritonitis may produce death. This patient took a couple of tablespoonfuls of brandy at the beginning to relieve the griping, and he says it burnt him like fire. Alcohol, of course, only adds fuel to the fire.

A very important question arises during convalescence as to how the bowels shall be opened. Never think of using a purgative or an enema. These bring violently into play all the muscles of the abdomen. Very often there will be a spontaneous movement on the fifth or sixth day, without any medicine at all. If there is not such an opening, give at the end of ten days a small dose of castor oil. If there is retention of urine, the water must of course be drawn off by means of the catheter. In using calomel in the early stages my advice to you is to push its use to the production of slight pyalism and soreness of the gums. If you follow out the plan of treatment which I have sketched for you in all its details, I think you will treat the disease very successfully.

In concluding, let me point out how far this treatment is applicable to cases of puerperal peritonitis. I am convinced that there is a class of

cases in which it is desirable. Where there is a wave of puerperal peritonitis due to adynamia flowing over a section of country this treatment will be of no avail, for here the disease is only an expression of a blood disorder. Nor is this treatment well borne where the disease is plainly septic in its origin. There is, however, a third class, in which the disease has been brought on by bruising of the parts during the process of labor. In this class the treatment for idiopathic peritonitis is well borne. These are the cases resulting from an extension of non-septic metritis. Here, of course, free venesection does great good. In these cases there is always decided febrile reaction, but absence of the characteristic puerperal typhoid and adynamic expression of face. In such cases you should always superadd the use of quinia, so as to provoke uterine contraction and so prevent septicæmia.

You must have great care during convalescence from peritonitis to prevent a relapse. Do not think of allowing any violent or gymnastic exercise for a long time afterwards. Fibrinous bands have been formed in the abdomen and may have become the seat of blood-vessels. If these are torn you may have either acute hæmorrhage or a very serious relapse.

RAPID LITHOTRITY.¹

BY T. B. CURTIS, M. D.

Two years ago I read before the Boston Society for Medical Observation a paper on Lithotrity.² In the cases which I then communicated to the society, successful results had been attained by means of multiple sittings of very short duration. In one case offering peculiar difficulties together with a stone of large size, the number of sittings reached thirty-five, extending through a duration of many weeks, in the course of which the patient, who was over seventy years old, necessarily encountered great risks. In strong contrast with the method of treatment then advocated is the operation performed in the cases which I now bring forward. In these cases, three in number, a new method was adopted, for which its inventor, Dr. H. J. Bigelow, proposes the name of "rapid lithotrity with evacuation," thereby emphasizing the characteristics which chiefly distinguish this operation from lithotrity as hitherto practiced.

CASES.

CASE I. Mr. X., aged fifty-four, living at Watertown, was sent to me by Dr. H. I. Bowditch. First symptoms of urinary trouble about two years ago, when he began to suffer from increased frequency of micturition and occasional hæmaturia. One physician said he had catarrh of the bladder, making no local examination. Another one sounded for stone, but used for that purpose a metallic catheter with a large curve. The instrument being unsuitable for sounding, the stone was not detected.

¹ Read at the meeting of the Boston Society for Medical Observation, March 18, 1878.

² See JOURNAL, August 10, 1876.