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DIAGNOSIS IN ABDOMINAL DISORDERS.

Presidential address

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DIAGNOSIS IN ABDOMINAL DISORDERS.**

"The science of diagnosis," declared Lewis, the illustrious secretary of the French Academy of Surgery, "holds the highest rank among the different branches of the healing art. It is at once the most useful and the most difficult." Whatever application his felicitous expression may have in the practice of general medicine and surgery, it has its full measure of significance when applied to intra-abdominal disorders.

At the outset I ask to be pardoned for presenting to this scholarly body a theme, the matter of which is as familiar to many of you as to myself. My excuse is, that I desire to awaken an increased interest in an art which threatens to become a lost one, so great is our inclination to do exploratory abdominal section. If a tithe of the effort which the surgical aspirant uses to secure operative cases, and perfect surgical technic, could be directed toward diagnosis, surgery would soon have a stronger hold on the confidence of each and every community, and suffering humanity be largely the gainer.

* Importance: "When we state that the abdomen has repeatedly been opened with a view to performing ovariotomy, when not only no ovarian tumor but no other tumor was present; that the pregnant uterus, at nearly full term, has been tapped with a trocar with the intention of drawing off ovarian fluid, and even been opened after abdominal incision before the mistake was discovered; that the chastity of virgins has been impugned by the assertion of the medical attendant that pregnancy existed; that numerous and frequent mistakes are made in attempting to decide upon the character of abdominal tumors; we have said sufficient to show that the question of diagnosis in these cases is often one of serious difficulty and anxiety to the practitioner. The diagnosis not infrequently involves decision between life and death. If we leave a patient to die unrelieved because of our inability to determine the character of the tumor, and subsequently discover that an operation might have been performed with success; or if we attempt to operate upon a patient, exposing her to all the risks of a formidable operation when no tumor exists, or perhaps one unfitted for operative interference, we incur a grave responsibility."

After twelve years experience confined absolutely to pelvis and abdomen, I recall many instances, for example in appendicitis, where the practitioner has relied upon medical treatment when indications for operative procedure were pronounced from the second day; other cases, where operation has been declared necessary no indications whatever existing; patients with intestinal obstruction, treated with drastic cathartics until in articulo mortis, when the symptoms of obstruction were as well defined as in strangulated hernia. In other cases strangulated hernia has been reduced by taxis, stercoraceous vomiting and obstruction remaining.

** Read at Western Surgical and Gynecological Association.

* "Edis, Diseases of Women."

One might infer, in view of the great advantages which the practitioner of to-day enjoys, gleaning from his medical journals the mature thought of experts in abdominal surgery, and the frequent pilgrimage of the surgical aspirant to the post-graduate school, that errors in diagnosis would be rare; but our most accomplished abdominal surgeons err in diagnosis, and this should rebuke our pride and quicken our charity for those of equal talent but less experience.

The rules laid down in our text books for differential diagnosis between the different varieties of abdominal tumors are either so well understood or accessible to those desiring to master them, that I shall refer only to cases in which exceptions to these rules are much in evidence. Where I have observed errors in diagnosis, it has rarely been for the want of knowledge, but for the want of methods, energy, persistence and wisdom to apply knowledge. The procedure has been without method. The abdominal surgeon must be both born and made; he must have by birth and cultivation acute perceptive faculties and strong powers of observation, otherwise how shall he systematically accumulate subjective symptoms, arrange them in proper sequence and deduce and then secure the objective signs, arrange them in their proper order, and think broadly in his interpretation of their significance. A good rule suggested by Mr. Tait is to make a mental list of the different pathologic and physiologic conditions which might possibly exist; then reason per exclusionem, and arrive ultimately at the conclusion that a given form of neoplasm or pathologic condition is present, for the reason that it could not be anything else.

The fact being conceded that abdominal surgery has had its largest development from operations on women, our mental list of intra-abdominal conditions which are to be excluded should be headed by pregnancy. The laity are prone to criticise the general practitioner if he hesitates to say whether his patient has an abdominal tumor or is pregnant. Even some practitioners ridicule their more accomplished brother because he hesitates in deciding between pregnancy and tumor.

Reports of genuine cases speak more forcibly than theorizing words; the former speak the

"Language rife with rugged maxims hewn from life."

Case first—Mrs. C., referred by Dr. Blount, of Wabash. Had enormously enlarged abdomen, which had existed so long that the cessation of her flow might have been attributed to the general debilitated and anemic condition. The doctor, a most accomplished practitioner, determined to exclude pregnancy, but found a softened portio, with pronounced pulsations in its circular artery; softened mammæ and wine-colored vagina. No emergency existing, he gave the patient more time, and thought the mysterious case was clear after he had delivered the patient of a living child. Not so, however; for the abdomen was nearly as large as before. During her convalescence it seemed necessary to relieve pressure by tapping. A specimen of the fluid sent to me gave evidence of ovarian cyst, which cyst was removed, an uneventful recovery of the patient following.

Case second—Mrs. Christie, care of Dr. Osborne, of New Winchester, able practitioner, who refused to take sides with the gossiping laity, which declared that the woman had either a tumor or was pregnant.

Time solved the problem. She was delivered of a living child; was admitted to my institution and relieved of her tumor, a cyst which, together with its contents, weighed twenty pounds. A good recovery.

Case three (which was to me a puzzle bewitched)—Mrs. F., of Terre Haute, was first seen in consultation by Dr. Thos. Eastman, who found decided abdominal enlargement. Flow had been absent, but appeared with hemorrhage. Evidence of septicemia was also present. After a few months' treatment for the septic condition, abdominal enlargement was reduced from the size of a human head to the size of one's fist; patient regained comparative health for eight months, when her former symptoms reappeared, except the uterine hemorrhage, tumor filling up the abdomen as high as the umbilicus. Abdominal section disclosed fibroid tumor, involving nearly the entire fundus, especially the anterior wall of the uterus, and pregnancy at least two and one-half months advanced An uneventful recovery followed.

Case four—Mrs. L.; age, 45; married seven years. Marked abdominal enlargement, reaching as high as the umbilicus. The gradual cessation of her flow, together with her advanced age, suggested that she had reached the menopause. The irregular contour of the enlarged abdomen, positive evidence of ascitic fluid and the presence of acute pelvic peritonitis, together with rapid emaciation, enervation and marked anemia, were suggestive of malignant disease. Case No. 3 was to me at this moment a sort of guiding star, and the rule that we should always be on the lookout for pregnancy induced me to make a thorough examination, and far behind and to one side of inflamed exudate, which crowded down the anterior vaginal wall, I found a softened cervix. The anterior surface of the pelvic and abdominal mass was so dense that during the two months in which I had her under observation prior to the operation, neither expert obstetricians called in consultation nor I myself could detect fetal heart sounds. For the first five weeks under my care, the local peritonitis gave way and she improved, only to decline again as she reached a time six and one-half months after her flow had ceased. The abdomen was enormously distended, lifting up the costal and ensiform cartilages. The patient was aware of my belief that she was pregnant, and both she and her husband were emphatic in their demands that the child be saved alive. The sudden change in her condition was to me evidence that the child had been dead three days at the time of the operation, which was made October 26, 1897. Patient made an uneventful recovery. After her return home she sent her husband to procure the dead fetus and bury it in the family burying-ground; hence the specimen which I here present is minus that interesting feature—the fetus. One of the most interesting features disclosed by opening the abdomen in this case was that during the attack of pelvic peritonitis several coils of ileum became firmly adherent to the large fibroid masses shown in the specimen, which at that time occupied Douglas's cul de sac. With the rapid development of the fibromata (which always takes place when a fibroid uterus becomes impregnated), and with the enormous development of the uterus necessary to its containing the fetus, together with an extraordinary amount of amniotic fluid, these coils of intestines were carried up to a position in front of the stomach and behind the ensiform cartilage, resulting in a tension upon these coils of bowel and their mesentery which

ultimately produced dyspnoea and impaired her circulation, until the radial pulse "swung the red lantern in our faces, signaling a wreck ahead." These cases emphasize the thought that in our process of reasoning by exclusion, we must occasionally accept the possibility that the physiologic condition of pregnacy often complicates a pathologic one.

These four cases call to mind the old adage that "Surgical cases always come in pairs." When case No. 3 was convalescent, we believed it would be a long time before we would find the mate to it, but in our large amount of work it was only a few weeks in coming.

The differential diagnosis between ovarian cystoma and uterine fibroma is not always so easy as some text books would have us believe. In the last four months I found an abdomen, which contained a multilocular tumor, distended as high as the umbilicus. Lying in front was a cyst, containing dense gelatinous semi-solid substance, with no apparent fluctuation. Several other cysts so completely surrounded the uterus that by vaginal examination the uterus was inseparable from the mass, and the entire tumor was so completely moulded into the pelvis that one of the best surgeons in the West advised against operating so long that decomposition of the cyst in the region of the ureter made the ultimate recovery of the patient after the operation impossible.

In such cases it matters very little what we call the tumors; they will not come by calling; they must be gone after. And since it is the gospel to women that fibroids can be removed with the same low rate of mortality as that which follows removal of ovarian cysts, and where the tumor is interfering with the health or happiness of the patient, a differential diagnosis before operating is useless. In such cases the language of Mr. Tait is in point: "Absolute accuracy of diagnosis is far from being possible; only the ignorant assert that it is, and only the fools wait for it."

That thorough anatomist, born surgeon and accomplished teacher, the lamented Prof. Chas. T. Parks, of Chicago, in his posthumous book, published by his widow, divides the abdominal cavity into two general divisions by means of a transverse line drawn through the umbilicus and this bisected by the median line gives four compartments. This transverse line is an arbitrary separation between those tumors which grow from below upwards and those which grow from above downwards. "Below this line," says Parks, "the majority of tumors are not serious in character. Examination affords more accurate deductions. The tumors are amenable to common treatment. Mortality is not high primarily and surgical interference gives permanent relief. The exceptions to this rule are cases of malignant tumors of the uterus and ovaries. Above this line abdominal tumors, as a rule, are serious in character; deductions drawn from facts observed in examinations are less accurate; operative procedure is accompanied by higher mortality, and results obtained are apt not to be permanent. (Exceptions of this statement are to be found in tumors of the gall bladder, cysts of the pancreas and some abscesses and cysts of the liver.) Comparison being the key to all definite knowledge, one must be thoroughly familiar with the normal anatomy of the abdominal organs and the relation they bear to one another. The normal shape of the organ and the manner of its attachment determine in some degree the character of the development and the direction of the growth. We have, moreover, a standard with which to compare the pathologic

conditions, their size, density, shape and location, following the rules of physical diagnosis, namely, inspection, palpation, auscultation and percussion. Where tumors grow from above downwards we can, by inspection above the transverse line, note that the tumor is affected by the movements of the abdomen, unless the growth is post-peritoneal or its attachments are very firm. Enlargement of the liver or spleen can generally be made out by dipping the hand under the abrupt inner margin of these viscera. I have noted, however, exceptions to these rules. In a case, from which I removed an ovarian abscess, I subsequently found the spleen hanging over the promontory of the sacrum. Four years later, when I removed this spleen, I found that it had been resting upon the floor of the pelvis, adherent; and had I not recognized it as the spleen in a former examination, would have made my incision below the umbilicus, instead of above. This operation was necessitated because of a dragging sensation in the left side. She was able to return home in two weeks after the splenectomy. She came to Denver for tuberculosis, dying six months later.

Differential diagnosis between a prolapsed and floating kidney and distended gall bladder are, as a rule, easy of accomplishment; the displaced kidney swaying from side to side, but easily reverting to a position under the liver; the gall bladder pointing in the direction of the umbilicus, swaying from side to side, but not allowing itself to be replaced under the liver.

In twenty-four operations for distended gall bladder, and many operations upon the kidney, I have found some marked exceptions to this rule. I recall a case, which I reported some years ago in the Journal of the American Medical Association, in which an irregular tumor in the region of the gall bladder, as large as a human head, and the extremely jaundiced condition of the patient induced me to conclude that nearly all of the evidence pointed to cirrhosis of the liver. I left, however, a loop-hole, that exploratory incision alone could complete the diagnosis. Abdominal section disclosed an enormous fibro-cystic kidney, containing a quart or more of pus and urine, which had so compressed the gall bladder and liver as to cause the absorption of the coloring matter of the bile and the extreme jaundice. Patient lived five years.

In the case of Mrs. M., a very fleshy woman, I could detect no enlargement in the immediate region of the gall bladder, but by palpation and percussion found decided tumefaction in the region of the right kidney. Examination of the urine disclosed some albumen and mucoid substance, which, together with the discoloration of the skin, hectic fever and chills, led me to believe that I had to deal with a pyonephrosis. Consultation with a genito-urinary surgeon confirmed this diagnosis. The usual lumbar incision was made. Sweeping the finger over the tumor, with a view of going beneath, it burst and poured out coagulated gall and pus in large quantities, which, by its pressure, had produced gangrene of the major portion of the gall bladder. A gall stone was found in the mouth of the cystic duct. Having noted in many instances extreme enlargement of the liver accompanying obstruction of the gall ducts, I passed my fingers into the peritoneal cavity, after removing the fragments of necrotic gall cyst, and found the left lobe enlarged to at least five times its normal size. The dimensions of the right lobe were not

materially increased. In this case there was no absorption of biliary coloring matter and no jaundice. The abnormal condition of the urine was due, doubtless, to pressure upon the right kidney.

The disorders of the abdomen are so many, their pathology so intricate, their diagnosis so important, that years might be profitably taken for their study. I hasten, therefore, to those pathologic conditions, the diagnosis of which have interested me most in recent years. Four years ago a patient came to me, suffering with an enormous ventral hernia. Twelve years previous Prof. Parvin and myself had relieved her of an ovarian cyst by incision from the umbilicus to the pubis. While operating for this hernia, my attention was called to the extreme stretching of the mesentery of both the small and large intestines. In fact, the hernia extended half way to the patient's knees, when she stood upon her feet. The hernial opening being closed, the abdominal wall above the umbilicus projected forwards as large as an ordinary water bucket.

A little later I saw another case, in consultation, where, protruding through a ventral hernia, following an abdominal section, the stretched mesentery admitted the formation of a mass of intestines, reaching more than half way to the patient's knees. Since my observation in these cases, I have noticed when working in the abdomen some very remarkable displacements, due to the stretching of the mesentery. For example, within the past few weeks I demonstrated to my assistants the perfect ease with which the descending colon and sigmoid flexure could be placed over in the right iliac fossa, with a finger's length of meso colon to spare; and one week ago to-day, while operating in northern Indiana, I found the descending colon reaching across over an immense tubal abscess into the right iliac fossa, firmly anchored near the right end of the right ligament of Poupart, then dipping deeply down into the pelvis, where it terminated in the rectum. I have a number of times found the cecum anchored by its vermiform appendix in the left iliac fossa, where I had first supposed it to be the descending colon, until investigation proved to the contrary.

These cases of elongated mesentery have been extremely interesting to me, for the reason that they have been, in several instances, an impediment to diagnosis in intra-abdominal conditions. I hope, in the discussion, some gentlemen will either confirm or disprove my idea, that fecal impaction in cocum and sigmoid may stand in a causative relation to elongation of the meso-colon. I am quite sure that these enlongations of the mesentery have stood in a causative relation to cases of intestinal obstruction, enabling intestines to float about and become entangled in false ligaments (the result of peritoneal adhesions), fallopian tubes, vermiform appendix, etc. In one case of volvulus, upon which I operated, the mesentery of the descending colon was surely two-thirds longer than normal.

There is nothing so calculated to contribute to a lower mortality, in operations for intestinal obstruction, strangulated hernia and appendicitis, as an early, carefully made and correct diagnosis. Appendicitis often produces intestinal obstruction by way of its sequential peritonitis. I have often wondered, when called to cases of acute obstruction, why the practitioner did not bring to bear in the case, his knowledge obtained in cases of strangulated hernia, the symptoms of which are almost iden-

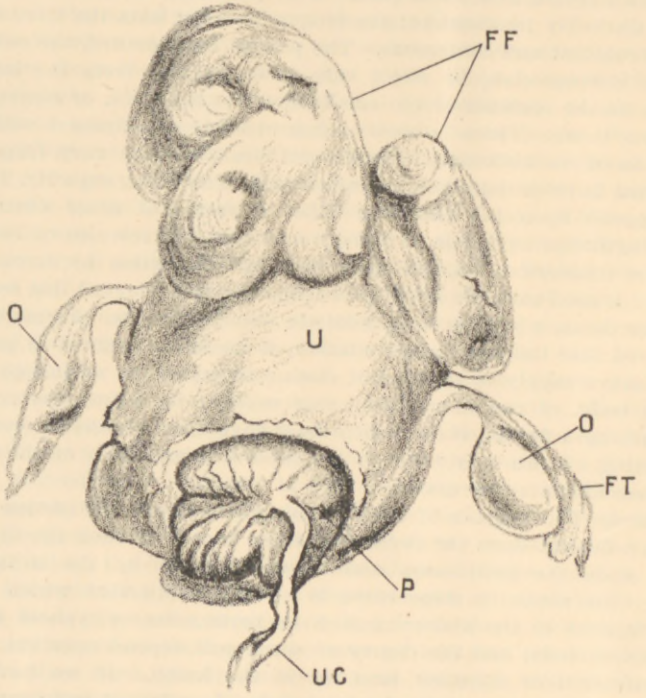
tical with those of obstruction. Such cases are seized more or less suddenly with severe abdominal pain. This pain may be constant or more or less distinctly intermittent; the longer the pain lasts the more does it become constant and continuous. The patient has vomited, the substance may be stercoraceous, in which case it must come from the large intestines, as the contents of the small intestines are fluid, or semi-solid in the lower ileum. There is more or less absolute constipation with some distention of the abdomen. The general condition may vary from slight oppression to profound shock. Symptoms such as these, says Mr. Treeves, may depend upon the following different forms of acute obstruction: (a) Strangulation by bands or through apertures, (b) volvulus of the colon, (c) acute intussusception, (d) some form of obstruction by foreign substance. A good example is the case from which I removed this enterolith from the ileum, a yard at least from the ileo-cecal valve. From this case I inferred that the prolonged irritation of the stone resulted in paralysis of the nerve supply to the bowel; closing its lumen by shrinkage on the foreign body. I can in no other way account for acute obstruction in the ileum by a foreign body, which must have been months or even years in forming. I can only refer to the general significance of the leading symptoms of acute obstruction.

Shock—The degrees of shock observed in acute obstruction do not so much depend upon the occlusion of the bowel as upon the injury inflicted upon the peritoneum and intestinal walls by the strangulated agent. The shock in these cases is identical with that which attends other injuries to the abdomen; such as perforation in typhoid fever or gun-shot wounds; and the degree of shock will depend upon the amount of peritoneum or intestine involved in the lesion. If we have acute peritonitis, it will, as a rule, be marked by elevation of temperature and a pulse unmistakable. It is stated that this symptom is most marked in the very young or the very old; profound cases have been observed by competent surgeons in adults in middle life. Individual peculiarities exert their influence; the stamina, as the great Flint used to call it (power of resistance), varies materially in different individuals.

Strangulation of the small bowels is attended with much greater shock, because of their direct association with the nerves of the great sympathetic ganglia of the abdomen.

Pain—This symptom is often misunderstood. The word colic sometimes answers as a soporific to the anxiety of the patient and friends, and too often as a cloak to cover the ignorance of the attending physician. The colic-like pains are due to the irregular and peristaltic wave excited in the intestine. The peristaltic wave is arrested at the seat of obstruction. The peristaltic wave passing down the walls of the intestine is hurled against the obstruction, returning up the center like a piston sent down a cylinder, which has an opening in its center, through which air and fluids return above obstruction; fluids accumulate: peristaltic wave is toward the pylorus, and vomiting occurs.

Character of the Pain—In cases where the obstruction is complete the pain is constant; in cases where the obstruction is but partial, the pain is distinctly intermittent. In the interval the patient may be free from suffering. The lengthening of the interval of ease would suggest the partial release of obstruction; the shortening of the interval between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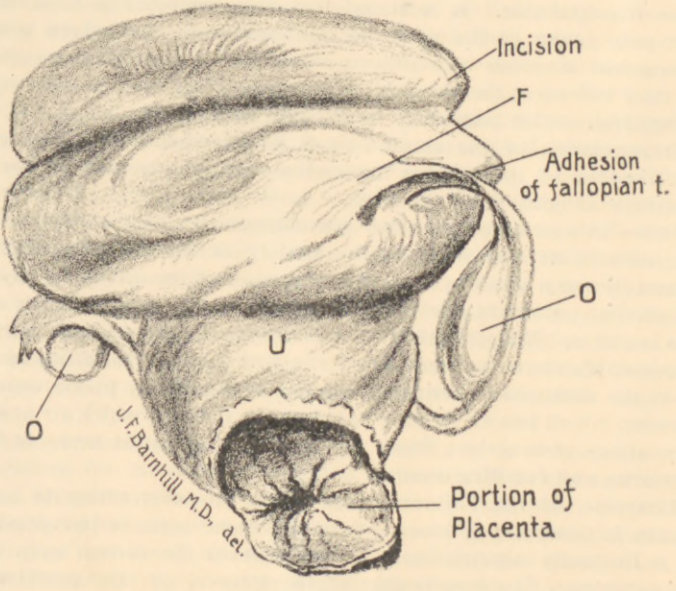
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the pains would indicate that the obstruction was becoming complete. In the earlier stage of obstruction pressure of the hands may not be attended with increase of pain or even with tenderness; pain may be relieved by pressure. Tenderness or increase of pain by pressure is indicative of hyperemia of the peritoneum or beginning peritonitis. Diminution in the severity of the pain, accompanied by other symptoms of a fatal termination, has no favorable significance.

Situation of Pain—The small intestines are abundantly supplied by and intimately associated with the great sympathetic ganglia. These fickle-minded sympathetic nerves have no geographical sense; hence a pain coming from an obstruction in any part of the small intestine is expressed in the solar plexus of the sympathetic or superior mesentery ganglia. This holds true with other intra-abdominal conditions. In a large per cent. of cases of appendicitis a careful review of the history of the pain will show that it was first expressed above the umbilicus in the region of the superior mesenteric ganglia.

As time will not permit reference to symptoms pertaining to the different varieties of intestinal obstruction, I can do no better than to emphasize the advantages of early and correct diagnosis of inflammatory conditions in the right iliac fossa.

The question whether the larger number of cases of appendicitis, with resulting perityphlitic abscess, recover under medical or surgical treatment can never be answered with justice to the abdominal surgeon until he, as well as the physician, shall be permitted to bring to bear, during the first three days, his knowledge of diagnosis and prognosis. It is not only the adaptation of the right remedy to the disease, but to the particular stage of the disease, that determines success or failure.

In many rapidly progressive diseases like appendicitis, which may ultimately require surgical interference, the abdominal surgeon should share the responsibility from the onset. That there are cases which should be entrusted to medical treatment from the beginning, I affirm: that the practicing physician is as capable as the experienced abdominal surgeon to select such cases, I most emphatically deny. At all events, the two should share the responsibility from the beginning and decide upon the following of either medical or surgical lines, and confer together during the progress of the case as to the most favorable moment for operative interference, and stop that murderous compromise—surgery when medicine fails.

In intestinal obstruction, strangulated hernia and appendicitis this fatal compromise—surgery when medicine fails—should be avoided. "Surgery should be the hand-maid of medicine, not supplanting her mistress, nor yet usurping her rights, but rather assisting her to maintain them."

How often is the expert in pelvic and abdominal surgery called to see cases of intestinal obstruction, the diagnosis of which was as clear and easy as that of strangulated hernia, where the physician had used all manner of drastic cathartics, until the circulation and general condition of the patient drove him in despair to ask for surgical aid. In the language of the lamented Lusk, "The resources of surgery are rarely successful when practiced on the dying."

I recall an instance of strangulated hernia, where the physician had given cathartics for three days, and then was asked by the wife of the

patient if it were possible that this old hernia had become strangulated. He found and reduced, as he believed, a hernia; vomiting still continuing. Five days later a consultant was called. He, not daring to take the responsibility of so serious a case, telegraphed; I responded to his call; opened the abdomen, only to find a hook of bowel, gangrenous and still tightly constricted by a portion of the greater omentum. I refer to this case, not to cast reflection upon the physician, but because I have seen so many similar, and for our instruction, and to take the opportunity to say that no incarcerated or strangulated hernia should ever be reduced by taxis; and that the teaching in works on surgical anatomy and in the surgical text books as to cutting with a button-pointed knife, so as to nick the band of construction, should all be rewritten; that in most of these cases the abdominal surgeon should make an incision free enough at the time of the incarceration or strangulation to diagnose the condition of the intestine we put back into the abdomen, the greater omentum as well, this being not infrequently associated in the hernial protrusion. The omentum by twisting or adhesion may maintain its constriction of a loop of bowel after the same has been put back in the abdomen. The old teaching with regard to taxis and cutting with a button knife is a relic of the time when the peritoneal cavity was the noli-me-tangere, and is repulsive to the mind of men who have hundreds of times made and closed much larger abdominal wounds than it would require to make sure of the condition of the hernial viscera, to return these to the abdomen, and to cure the hernia by Halstead's or some other radical operation.

Exploratory Abdominal Section—When we open the abdominal cavity for some well-defined tumor or pathologic condition, it is very different from engaging in something the beginning and ending of which can not be known. Any one can slash open the peritoneal cavity, but a master in his art will give the patient many more chances of life than the amateur, because his knowledge of anatomical structures and physiological functions added to pathological conditions, and his experience, will enable him to give the patient the benefit of everything known to the surgery of the abdomen, and nine times out of ten what we put into the abdomen contributes more to our death roll than what we take out; and four times out of five it is the dirty hands put into the abdomen which do the mischief.

The great objection to any chemical sterilization of the hands and field of operation lies in the probable neglect of that greater virtue which lies in soft water, soft soap and softened elbow grease by much trituration of microbes. Cleaning nails, five minutes scrubbing; cleaning nails again, five minutes more scrubbing; then a tablespoonful of powdered chloride of lime, until the heat of the lime begins to lessen; then sal soda until the hands are cooled; then immersing in alcohol. I have lost faith in the permangangate and oxalic acid. It leaves an acid on the hands last, the lime and soda an alkali last; and hands that are in the abdomen every day, and several times a day, will tolerate the lime and soda, whereas the potash and oxalic acid have proven in my work very hard upon the skin; and, further, bacteriological investigation by able eastern surgeons, as well as in our own laboratory, have shown a decided preference for the free chlorine produced by the lime and soda. All instruments and dressings can be boiled. Trendelenburg position can be im-

provised by tipping up an ordinary slat-backed chair upon the table. This position is of much advantage by enabling us to throw light to the very bottom of the pelvis, when the patient is tipped up before the small window of the farm house or village cottage.

Let the operator reflect, what am I going after, where do I expect to find it, how shall I deal with it after I do find it, and what are the patient's chances of life after I've done my best? After making the incision, there should be some system in the procedure. First hunt for the greater omentum, drawing it gently up toward the wound to see if perchance a coil of bowel has not slipped through a rent in this frail fabric; or if it has not slipped over into one corner of the pelvis and produced constriction by an adhesion or being tangled with Fallopian tube or vermiform appendix. Next, the vermiform appendix should be sought for by lifting up the cecum. In women, of course, the Fallopian tubes should be interrogated. To do this the whereabouts of the uterus should first be determined.

Great care should be taken in cases of large tumors, lest the bladder has become adherent, and I have repeatedly found coils of intestines adherent between abdominal wall and tumor, so exceedingly careful manipulation during the first steps of our investigation may help us out materially.

Tracing the bowels from their beginning to their ending is bad practice, conducive to shock, and will not teach us as much as going definitely down with fingers into those localities where pathologic conditions are most likely to be found. In short, every business success is only attainable by minute attention to details.

Careful, conscientious attention and skillfully doing the thousand and one little things make the sum total of success in pelvic abdominal surgery. He succeeds most whose diagnostic acumen is best.