SOME RARE AND ODD CASES AND EXPERIENCES IN PELVIC AND ABDOMINAL SURGERY: THE LESSONS THEY TEACH.

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The accidents or failures following surgical operations are seldom paraded before medical societies. It is only human to forget our failures and our mistakes and dwell upon our successes. We all like flattery better than we do criticism. It is well that we should parade our successes, for it is well known how much more the laity parade our failures than they do our successes.

But among ourselves it is well to know our failures as well as our successes. I report some cases for their rarity, others for their novelty, and still others for the mistakes which they show. By our mistakes do we learn to avoid them, sometimes.

WOUNDED URETERS.

Case I.—Mrs. W. was operated on at Buffalo Woman's Hospital for a uterine fibroid the size of a full-term pregnancy. The tumor was of rapid growth, she having noticed it about one year before when just rising above the pelvic brim. It had grown in the lower uterine segment to so great an extent as to completely choke the pelvis. It was, therefore, one difficult to remove. In the course of its removal a section of the right ureter about one inch long was taken with the tumor. The cervix was also taken out. A uretero-ureteral anastomosis was made, passing the proximal into the distal end, with catgut sutures. In order to provide for drainage should the anastomosis fail, the cut end of the vagina was not entirely closed. Such is my custom in all total extirpations of the uterus to leave a little chink in the upper end of the vagina as a safety-valve for any ooze that may need to come away. In three days urine

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began to come through the vagina, and continued to run for about eight months. She was importuned to have another operation, but she was obdurate. She hoped that she would get along without it. I assured her that she would never get well till she submitted. Suddenly the urine ceased to flow, an agonizing pain developed in her right kidney, and she thought that she must submit. Examination showed a large, tender, fluctuating tumor, an acute hydronephrosis. Before anything operative was done, however, the pain and tumor began to disappear, the urine did not pass into the vagina but into the bladder, and from that day to this, now over five years, she has been perfectly well.

CASE II.—Mrs. M. had a total extirpation of the uterus at the Buffalo Woman's Hospital for a lymphadenoma of the uterus. I do not think that the left ureter was cut across or entirely occluded by the suture, but I do think it must have been partially occluded by a suture. For a week after operation she had pain over the left kidney and was excessively tender on that side. She was very fleshy, and being so tender and withal nervous, no other bad symptoms presenting, I waited to see what would turn up. At the end of a week the urine began to come through the vagina, and continued for months.

From my experience with the previous case I had hopes that this would also heal. I was, however, on the point of advising operation, when the flow ceased for several days and then returned. There was some lumbar pain. Several times the urine ceased flowing through the vagina and then reappeared. The intervals of return increased, till at last it ceased permanently. For nearly three years she has been well.

I dare say that the majority of surgeons would deny the probability, yes, the possibility, of such a result as narrated in these histories. Yet such has been my experience in the only two cases in which I have had the ill luck to injure the ureters. It pays, therefore, to wait, in a condition like this, which is not dangerous, and give the reparative powers of the body a chance.

CASE III.—Mrs. B., nearly sixty years of age, had had a prolapsus uteri for years, for the support of which she had been wearing a Mackintosh supporter. She came to me with a uretero-vaginal fistula on the left side, evidently made by pressure of the edge of the cup against the vaginal wall. She refused to be operated upon,

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and disappeared. I have always wondered if it also did not heal by granulation.

CESAREAN SECTIONS.

CASE IV.—Mrs. G., aged thirty-five years, had been in labor about twelve hours, at term. She had had several children. Her attending physician, when first called, found a rotund body presenting which felt like the fetal head, but he could not find the os uteri. Later the os was found anterior to the mass, high up and pressed forward over the pubic arch, the mass in the pelvis being a tumor below the uterus. The growth proved to be a carcinoma of the rectum entirely filling the true pelvis. She was removed to the Buffalo Woman's Hospital, where I did a Cesarean section the same evening. Frederick Cesar was a hearty lad, about four years old, the last I heard of him. The mother lived two and one-half years in comparatively good health, dying from acute obstruction. Two microscopical examinations were made of pieces of this growth which were taken from the rectum, one soon after operation and the second about two years later. Both were carcinomatous. The husband reported no obstruction to perfect coition up to the fifth month of pregnancy, when he began to notice something wrong. The growth evidently was of very rapid development during pregnancy, in contrast to its very slow progress after delivery.

CASE V.—The second case of Cesarean section is reported because the child died at delivery. The mother lived for several weeks, and died of nephritis. The uterus was delivered as usual, and the cervix was ligated with an elastic ligature. The anterior uterine wall was incised from the fundus downward. The placenta was found to be implanted directly under the line of incision, and some large fetal vessel in it was either cut or torn, for there was a large gush of blood, not from the uterine wall, but from the placenta. It was rapidly removed and the child promptly delivered. A forceps was at once placed on the cord, but the child was pale and exsanguinated. Respiration was sighing, the pulse was imperceptible, and saline infusion, oxygen, hypodermic stimulation, etc., were of no avail. It died inside of fifteen minutes. Previous to section its heart tones had been strong and vigorous.

I never before had seen the placenta implanted on the anterior uterine wall at a Cesarean section, and I have seen several. It

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never had occurred to me that such an accident might occur. I therefore recount the case, so that others may profit by my experience. A more careful incision might have prevented the accident.

SIGMOIDO-VAGINAL FISTULA.

CASE VI.—There are two reasons for reporting this case of sigmoido-vaginal fistula and the operation done for its cure: first, because, so far as the writer can ascertain, it is unique; second, because its etiology is so obscure. Dr. J. B. Murphy, whose acquaintance with the literature of intestinal surgery and of rare cases is large, says it is unique.

The history, as given by the attending physician, is as follows: Mrs. H., aged thirty-two years, mother of four children, the last having been born one year previous to the beginning of present illness. Family history good; cancer and tuberculosis not among family diseases. On August 2, 1894, Dr. Chamberlain, of Meadville, Pa., where the patient lived, was first called. She had been ailing for several days. He found her considerably reduced in flesh and strength, with a fever and a foul-smelling vaginal discharge. Examination revealed sloughing of the vaginal portion of the cervix uteri, which was supposed to be malignant in nature. Antiseptic douching and general tonic and sustaining treatment was followed.

About August 15th she began to bleed freely from the vagina, at times profusely. This continued five or six days, much reducing her strength. September 5th, Dr. J. C. Cotton, of Meadville, saw her in consultation. Some soft tissue was cureted away, and a uterine sound was found to pass freely through the uterine wall into some cavity within the abdomen. There is no report of fecal matter having passed through this opening at this time. But soon after her condition became much worse, the foul odor continued, and late in November, after four months of illness, death seemed imminent, and was expected from day to day.

At this time her bowels began to move freely through the vagina, and she began at once to improve. Previous to this time for several weeks it had been nearly impossible to obtain any movements from her bowels. In three months' time the patient was well, all discharge except feces from the vagina had ceased, and with that exception she felt well.

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On May 22, 1895, six months after the first appearance of the fistula, I saw the patient with Dr. Cotton at the Meadville General Hospital. On examination I found all the parts soft and free from any feel of a malignant nature. The left lateral half of the cervix and body of the uterus were gone, allowing the examining finger to enter the uterine cavity to the fundus. The parts were all covered with healthy-looking epithelium.

Evidently the left utero-vaginal junction, the uterine artery and vein, and a part of the left broad ligament had been destroyed by the necrotic process, this accounting for the profuse hemorrhages she had had soon after the beginning of her sickness.

My finger passed just to the left of the uterus into an opening which felt like gut; the edges of the mucous membrane of the same could be felt pouching out into the vaginal canal. Speculum examination showed this to be the case. Rectal examination revealed complete occlusion of the gut four inches above the anus, the rectum being of normal size till it reached the occluded end, which was simply a rounded cul-de-sac.

I operated immediately after completing the examination. When the abdomen was opened a mass of adherent gut, tube, ovary, and new deposit was found filling the left side of the pelvis down into Douglas's pouch. After freeing adhesions and checking hemorrhage, which was rather profuse, I found the point at which the sigmoid opened into the uterovaginal junction. The gut was cut loose from this attachment, leaving a free cross-section of the sigmoid at this point, and a large, ragged opening in the vagina.

The rectal cul-de-sac deep down in Douglas's pouch was located by having an assistant pass a long cylindrical speculum into the rectum and push it up from behind the uterus. An opening was made into the upper left-hand side of the occluded end of the rectum and one-half of a Murphy button placed there. The other half was placed in the free end of the sigmoid. The mesocolon was then cut and stretched to allow the end of the sigmoid to be carried low enough to join the two parts of the button. In such cramped space at the bottom of Douglas's pouch it was no easy matter to do, but finally it was done, thus making an end of sigmoid to side of rectum anastomosis.

Between the occluded end of the rectum and the point where the sigmoid opened into the vagina was about three inches of gut, which

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was absolutely closed. This was the only available tissue with which I could close the opening from the peritoneum into the vagina. The uterus was fixed and could not be drawn to the left, and sloughing of the broad ligament had made tissue scarce. I therefore freed this piece of gut enough to bring it up into the opening, at the same time leaving enough blood supply to prevent sloughing. I stitched it over the opening, flushed out the abdomen with a warm normal salt solution, and closed the abdomen. She made an uninterrupted recovery. Her bowels moved through the button on the fourth day, and the button came away on the eleventh day. Had I had time I should have closed the cleft in the uterus also; but she had been under anesthesia for an hour, and I did not do it. Her bowel function has been perfect since. She has been perfectly well, except at times she has more uterine discharge than she ought. Menstruation is regular and normal, and her general health is good.

What was the probable cause of this sloughing primarily? Malignancy cannot be considered as the probable cause. A malignant slough would not have healed as this did, leaving no trace of infection in the surrounding tissues. At the time of operation the edge of the uterine wall which had sloughed was covered by a healthy epithelium. That part of the gut between the rectum and the sigmoid which was used to close the vaginal opening was completely occluded as by an inflammatory process. It is my belief that this began first as a sigmoid ulcer, possibly due to a spiculum of bone or some other foreign substance penetrating the mucous coat and setting up an infective inflammatory process which eventually invaded the broad ligament, vaginal vault, and left half of the uterus. I was unable to get a history of any bowel disturbance for a period prior to the real illness which might lead up to a probable diagnosis of sigmoid ulcer.

REOPENING ABDOMEN FOR SEPTIC PERITONITIS.

CASE VII.—Mrs. McK., aged thirty-two years, had a large, semi-solid tumor, about the size of a seven months' pregnancy. She had been pronounced pregnant, which was true, but it was not intra-uterine. She gave a history after operation of suppressed menses and suspected pregnancy one year before, and a history of recurring attacks of pain and fainting, at each of which times the tumor in-

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creased in size and remained permanently larger. This history was elicited after her recovery. Before operation she was too sick to give any history.

On opening the abdomen I found a subperitoneal semi-fluctuating mass, of which the uterus formed a part of the anterior wall, and the posterior surface was covered by descending colon and sigmoid which had been raised up out of the pelvis. Coils of small intestines were adherent posteriorly. The peritoneum was in a clear area and the mass enucleated with difficulty. It consisted of partially organized blood-clots in concentric layers. The semi-fluctuation was due to a recent hemorrhage into the sac. Besides the clots and fluid blood a placenta and a dead six months' fetus in its membranes were also removed.

I then found that I had torn diagonally across the sigmoid completely. This had been done as the sac had torn while enucleating, the mesosigmoid forming a part of the posterior wall of the gestation sac. The gut was joined end-to-end by a Murphy button. To drain the gestation sac Douglas's pouch was opened freely and a drainage-tube passed into the vagina. The edges of the sac were then closed by continuous catgut suture. The abdomen was flushed and closed, leaving all the fluid it could contain.

Everything went beautifully for three days. On the morning of the third day she complained of abdominal pain, the pulse became rapid and thready, the expression became pinched, and green vomit began. I saw her six hours after this change. I thought that the button had given way, and proposed to reopen her at once. The abdominal cavity was overflowing with fetid, purulent fluid, and coils of gut were covered with flakes of lymph—a most unpromising condition. The button was found to be intact, but the edge of the sac had sloughed for about two inches, and the contents of the gestation sac had escaped into the peritoneum. After cleansing the cavities the edges of the sac were trimmed back into healthy tissue and resutured. The abdomen was again flushed and a strand of gauze packed over the line of sutures, and the end carried out at the lower end of the abdominal incision. She was stimulated and well nursed. The following day she was still pulseless and cold. I told her there was no hope of her recovery, and on my departure left a signed death certificate at the hospital. The same afternoon she began to show some pulse, her bowels moved freely through the

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button on the following day, and from that time her recovery was rapid and uninterrupted. She now is as well as ever in her life. The button came away on the ninth day.

CASE VIII.—Mrs. C., aged thirty-eight years. Has a pyosalpingitis which has been discharging for a year through the bowel and at times through the bladder. It is now discharging through both viscera. Her skin is sallow, she is emaciated, has no appetite, has temperature constantly—in fact, is generally septic. The left tube and ovary were enucleated from dense adhesions and the openings into the sigmoid and bladder closed. The abdomen was thoroughly flushed and closed without drainage, the belly being left as full of normal salt solution as possible. A self-retaining catheter was placed in the urethra.

Patient did well till the fourth day. No signs of peritonitis were present, and bowels had moved. The pulse began to change in frequency and character, and all the symptoms of rapid septic infection of the peritoneum came on. She was reopened in a few hours. The sutures in the gut were all right, but those in the bladder had sloughed. The edges were trimmed back into apparently healthy tissue and reunited in layers, mucosa, muscle, and peritoneum. The lymph was removed from all the intestines and the cavity generally thoroughly cleansed. Gauze was packed over the line of suture and the end carried out at the lower angle of the incision.

She improved at once, and began to take small quantities of nourishment. Her bowels moved daily with cathartics and enemas. All signs of peritonitis passed away, but her temperature and pulse still kept up, with profuse sweating. In four days urine began to come up through the wound, showing the failure of the second suture of the bladder to unite. The sinus and bladder were irrigated frequently, both from above and through the urethra. She died on the sixteenth day after operation, not from septic peritonitis, but from general sepsis. Although she eventually died, we must recognize that the septic peritonitis was stopped in its fatal course. The sinus from the lower angle of the incision to the hole in the fundus of the bladder was completely walled off from the general peritoneal cavity, which was clean, although showing many adhesions. Had she been in a less septic condition at the time of operation there is every reason to believe that she would have recovered.

When the septic process is not the result of infection at the time

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of operation, but secondary in nature, dependent upon the non-closure and leaking of a line of suture in some viscus, then the chances for success in promptly reopening the abdomen are best. In fact, I might go so far as to say that only in that class of cases is it indicated. If these openings into viscera have been caused by intra-pelvic pus collections draining through them, we have primarily an infected area to bring together with suture, and there is no certainty of securing primary union. If there has been no primary infection of the peritoneum, the patient will go along well till such time as the line of suture gives way and the peritoneum is invaded by septic material. At such time the change is as prompt and as well marked as in perforating typhoid ulcers or perforative appendicitis. Then is the time to operate promptly, and the results promise as well as for prompt operation in any perforative process.

DOUBLE RUPTURED TUBAL PREGNANCY.

CASE IX.—Mrs. F., aged thirty-eight years, mother of several children, gave all the signs and symptoms of ruptured tubal pregnancy. History showed rupture to have occurred primarily about ten days prior to operation. The pelvis was full of blood-clots on both sides, and both tubes were found ruptured and the seat of hemorrhage.

There have been several cases reported of recurring tubal impregnation in the same patient, but I never have seen one reported of simultaneous rupture of both tubes.

ABSORPTION OF NON-OPERABLE FIBROIDS.

CASE X.—Mrs. P., aged thirty years, had a uterine fibroid, which on opening the abdomen was found so universally adherent as to render it advisable not to remove it. The fundus of this growth lay about midway between the tubes and umbilicus. In one year after operation the growth has almost entirely disappeared.

CASE XI.—Mrs. E., an exactly parallel case to No. 10.

How or why a retrograde process was established in these cases of fibromyoma of the uterus simply by opening the abdomen is about as inexplicable as is the similar result in some cases of tubercular peritonitis.

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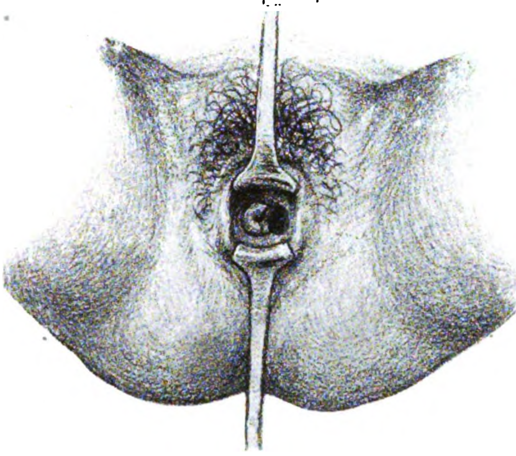
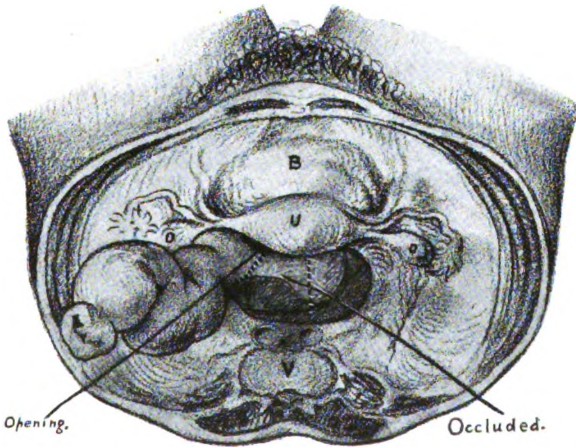
Fig. 1.



Sigmoido-vaginal fistula.

Fig. 2.



Sigmoido-vaginal fistula.

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MECKEL'S DIVERTICULUM AND PATULOUS URACHUS.

CASE XII.—Master W., aged eight years. This child has never been strong. When about four years of age he began to have abdominal pain, and redness and swelling about the navel appeared, followed by a discharge of foul-smelling, grumous fluid and some blood. In a few weeks the discharge ceased, and reappeared again in a few weeks with the same pains. When seen by me the pain and discharge had been constant for over six months, the umbilicus was swollen, red, and the skin excoriated for an area of two inches in diameter. This little fellow was being given one-quarter-grain doses of morphine several times daily, and then was in pain a great part of the time. A probe passed downward toward the base of the bladder about two inches into a pervious urachus.

Operation.—An incision was made in the abdominal wall down to the director in the open urachus, and the latter excised. While excising the infected umbilicus a diverticulum from the ileum was found leading to the umbilicus. It was removed with the umbilicus. Since operation the pains have entirely disappeared and the boy is gaining color and flesh. Meckel's diverticula are rare, so is a pervious urachus, but to have both associated in the same patient is still more rare, hence my report of it.

PUNCTURED UTERINE WALL.

CASE XIII.—Mrs. B. had an intrauterine fibroid which had been expelled and lay in the vagina. The growth was about as large as a medium-sized orange. The cervix had retracted about what seemed to be a short pedicle. With curved scissors I proceeded to cut the capsule near the pedicle, so as to enucleate the tumor. When the growth was out I could pass two fingers through the opening in the uterine wall directly into the peritoneal cavity. The apparent pedicle was a partially inverted uterus, dragged down by the contracting os as it slipped back over the fibroid. Hemorrhage being quite free, and it being difficult to close it easily through the cervical canal, I opened the abdomen and did it more readily and satisfactorily. Lesson: look out for short pedicles on extruded intrauterine fibroids.

CASE XIV.—After abortion the attending physician had cureted the patient for retained secundines. He perforated the fundus pos-

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teriorly and drew a loop of ileum into the opening with a placenta forceps. Recognizing that something was wrong, he desisted and waited for developments. Soon symptoms of intestinal obstruction came on, and on the second day I saw her in the evening. She was removed at once to the Woman's Hospital and operated. The gut was incarcerated, but not strangulated. It was easily pulled out of the opening, which was closed with a suture, and the patient promptly recovered.

CASE XV.—A second case to which I was called, following curetage after abortion, did not result so favorably. In this instance the physician went through the uterine wall, pulled down a loop of gut, and never quit till he had stripped six feet of it from the mesentery, and then cut it off and sent for me. I arrived in time to see the patient die. Comment is unnecessary.

DISCUSSION.

DR. LEWIS S. MCMURTRY, of Louisville, Ky.—This is, indeed, a most interesting paper, and the Association is certainly indebted to Dr. Frederick for grouping together these cases. Josh Billings said that "Success does not consist in never making a mistake, but in not making the same mistake twice." Such cases convey to us very useful lessons, and from the preface that Dr. Frederick made to his paper I thought he was going to submit to us an entirely different contribution. He said he was going to submit a paper showing a number of surgical errors that fall to the lot, in a greater or less degree, of surgeons, but he did not do so. Throughout all these cases I can find no evidence of any mistake of Dr. Frederick, although in the last case there was a slight anatomico-pathologic error on the part of the surgeon who operated before he arrived.

In regard to the case of severed ureters with fibroid tumors, this is an accident that is very common. I have never had this occur except in one instance. Certainly his experience was very delightful and an exceptional one in the case where the sutured ureter appeared to have failed, and the urine was pouring out, and then to have it resume the natural channels spontaneously without surgical intervention. It is a very remarkable experience, and seems to have been repeated in a second case, which was different somewhat, and is also a very unusual experience. It shows what nature can accomplish in these cases, and

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it is better to give nature a good chance before we resort to extremely aggressive surgery. I would like to ask Dr. Frederick if these injuries to the ureters occurred in his early operative experience or later?

Dr. Frederick.—In the early years of my operative experience.

Dr. McMurtry (resuming).—Accidents to the ureters almost always occur in the early experiences of operators, because they lose sight of the possibility of finding a ureter connected with the fibroid, but if they are on the lookout for the ureters they can dissect the ureter out, save it, and it is wonderful how it will bear manipulation in dissecting it out so as to avoid injury to it later. There is one case I was particularly impressed with, that is, the sigmoidovaginal fistula, with destructive inflammation of a portion of the uterine cervix and also of the body of the uterus, and then a complete occlusion of the rectum, followed by a skilful operation with the Murphy button. I quite agree with him that that case was unique, and it presents for our consideration some very important and interesting points. Of course, there is a great surgical lesson in that case. In the first place, I venture to express my belief, from the recital of the case, that the physician who probed the uterus pushed the probe through the uterine walls into the large bowel, and that the probe was infected. I do not know what the theory of Dr. Frederick is, but that is what I would infer from the report of the case. The patient did not have cancer. And another important point is that there was no history of syphilitic disease mentioned; consequently there must have been a very profound and virulent infection, and there is no infection there which could be conveyed ordinarily unless it be syphilitic, and which, in the absence of malignant disease, could have produced this destructive inflammation. Hence, I am constrained to believe that the only explanation we can get of this extraordinary and exceptional lesion is that the physician who, just before the inflammatory process began that destroyed these tissues, shoved the probe through the uterine walls that had upon it some very active virus, established a focus of infection of such a virulent and destructive character that it destroyed the tissues.

The occlusion of the rectum is unusual, and I would like to ask Dr. Frederick how much of the fecal contents passed through the opening into the vagina?

Dr. Frederick.—All of the contents. The patient was sick for four months before any feces passed into the vagina.

Dr. McMurtry.—There must have been inflammation extending also to the rectum. Simple inflammatory conditions do not produce strictures and occlusion of the rectum. For example, the ulceration of dysentery never produces stricture of the rectum. Simple ulcera-

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tive rectal conditions do not produce strictures. Strictures of the rectum are due to malignant or syphilitic disease, and the occlusion of the rectum here is of a very peculiar character, and something I cannot exactly understand. The case was managed in a masterly manner, and certainly everything was done that should be done, as the result shows.

In the case of the patient of whom the doctor presented a certificate of death, the case of putrefying ectopic pregnancy, I think Dr. Frederick's criticism of himself is very correct. He should have drained that case at the time.

Dr. Frederick.—The one I did not drain died.

Dr. McMurtry.—You reopened the gestation sac?

Dr. Frederick.—I sewed up the gestation sac.

Dr. McMurtry.—That is an interesting case. It brings up for consideration one subject, and that is the question of reopening the abdomen for septic conditions or otherwise, and there is one important point about that question: that ought to be decided very early in the after-treatment from the primary operation. I think that when these cases are allowed to go on, immediately after the secondary operation the patient will go into collapse, but in this case it was certainly done in the very nick of time.

Dr. Frederick has presented to the Association a number of subjects, any one of which would occupy our attention for the entire forenoon, and I have simply made some running comments on the cases he has presented. I am sure we are all grateful to him for presenting a paper so practical, and I wish to congratulate him on the splendid results that he has obtained in the cases.

Dr. M. Rosenwasser, of Cleveland, Ohio.—As Dr. McMurtry has said, this is a very valuable contribution, and we could occupy a long time in discussing it. I wish to offer a criticism on the operation for suppurating hematocele. There were dense adhesions around and back of the sac; the doctor tried to enucleate the sac.

Dr. Frederick.—I did not do that. I did not separate the adhesions from the sac. I made an incision in the free space in the sac, and in working in there the tension brought upon this tore the sac across the sigmoid, which was a part of the sac.

Dr. Rosenwasser.—In these cases I do not attempt to enucleate the sac or to separate the adhesions. I find a free space, open it, and clean out the cavity; I then stitch the edge of the sac to the edge of the abdominal incision, thus completely walling off the peritoneal cavity, and simply drain the sac, which is now extraperitoneal. I drain by means of gauze or a large rubber tube to keep the opening

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patent; intra-abdominal force so compresses the sac that it does not occupy much space. The work can be done from above by abdominal section, or we can do it by vaginal section without interfering with the abdominal cavity.

DR. MCMURTRY.—I would like to add a word or two in regard to the case of Cesarean section in which Dr. Frederick lost the child. In that case, in cutting into the placenta, I understood him to say in his paper that he regretted he did not make the transverse incision higher up; I would ask him how he could have known that the transverse incision higher up would not have entered the placenta?

DR. CHARLES GREENE CUMSTON, of Boston, Mass.—I would like to report one case of injury of the ureter in connection with the paper of Dr. Frederick. It is the only one I have ever had. The case occurred last winter, when I was enucleating an intraligamentous fibroid. The growth was adherent to the walls of the broad ligament; it was peeled out with considerable difficulty, but when I arrived at the cul-de-sac, the bottom of the ligament, a very large bundle of veins surrounded the surface of the growth at its base, and it was impossible to distinguish the ureter, although the enucleation was done with care, and was an easy matter until I got down to the base, where a certain amount of venous hemorrhage occurred and obscured the view. But I was under the impression I had avoided the ureter. I ligated the base of the growth and removed it. The broad ligament was sutured and the abdomen closed. The patient for one week voided from thirty-two to forty ounces of urine daily in perfect condition. At the end of the week following the operation she began to have pressure symptoms of the bladder, and on bimanual examination I found a large cystic mass (it was a left broad ligament case) on the left-hand side, pushing the uterus well over to the right, pressing on the bladder, and filling the left side of the pelvis pretty well. I presumed, in all probability, it was an intraligamentous blood-clot, because there was free oozing from the walls of the broad ligament during the enucleation. I opened the abdominal incision and discovered a large cyst; the broad ligament had perfectly united. When I had gotten hold of it in the abdomen, it seemed to me to have a peculiar feel for a cyst containing a blood-clot. I punctured it, and a peculiar-looking liquid escaped. I could not say how much, but it was a large amount. I drained it. It occurred to me at the time that it was urine, and it was. The broad ligament formed a second bladder. I was in hopes that possibly by draining the cyst it would eventually close. Knowing that I had removed fully half an inch or three-quarters of an inch of the ureter, it was almost impossible to have considered the question of uniting it

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again. I considered the question of ligating the ureter and allowing hydronephrosis to take place, but that was not very feasible. The case resulted in a nephrectomy, but so far as I am aware, and I have looked up the literature quite thoroughly, this is the only case where the ureter has been cut so that the urine was voided into one broad ligament.

There is only one point more I would like to speak of, and that is with reference to Dr. Frederick's case of perforated sigmoid, with occlusion of the bowel. I have had a few cases of rectal surgery. I have resected the rectum in two cases of syphilitic stricture, which, of course, is the only treatment for that condition, and in both of those cases, before doing a Kraske operation, I have made an artificial anus on the right side, allowing the bowel to empty itself entirely from the right, so that the gut below was completely cleansed. In these cases I do not believe it is well to use the button if we can do clean surgery, and clean surgery can be done by means of sutures. That is the only thing that occurred to me, that an artificial anus might have allowed the opening to close by granulation. It might, or it might not.

Speaking of suture material, I will say that I have been using celluloid thread in my gastrointestinal work, which I have found superior to anything else for this kind of surgery. The longer it is boiled the stronger it becomes.

Dr. A. Goldspohn, of Chicago, Ill.—I believe Dr. Frederick in his paper mentioned one case in which there was disappearance of a fibroid a year or so after the operation, although the fibroid was not removed. The question is, What accounted for the disappearance of this tumor? I would like to ask him whether or not the woman conceived in the meantime, whether pregnancy figured in the case? because after pregnancy fibroids have been known to be very much diminished in size, changed in their consistence, and I think occasionally have disappeared.

He also spoke of one case in which he sutured the bladder twice. I had a case about six months ago which was a parallel to that one, in that there was an ovarian cyst which had become infected probably from an intestinal source, and formed a large abscess, with the intestines and bladder firmly attached to it all over. After opening the abdomen and palpating the tumor wall, in attempting to free the tumor from the adherent intestines without opening it, I opened the bladder. I at once, before the tumor was opened, and before any pus made its appearance, sutured the bladder with two rows of buried catgut, the knots of one row being inside of the bladder and the second row being of interrupted superficial sutures outside of the others. I could not

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extirpate the tumor, but I opened it and drained. In that case everything ran along smoothly for about five days, when the bladder leaked, urine escaping into the cystic abscess cavity, with whose contents it was voided outward. The question of secondary suturing of the bladder was in my mind, but I did not attempt it because I feared it was useless. It would be stitching in a very septic field, and I did not do it. The cystic abscess cavity contracted until it was practically gone, and we had then an abdominal fistula of the bladder, which also contracted and eventually closed. Of course, the patient had a very violent cystitis. The bladder was irrigated twice daily for a number of weeks. I feared an ascending infection by way of the ureters, but it did not occur. The outcome has been successful, with closure of everything, although only after two reopenings, for a short time, of the bladder sinus.

Dr. N. Stone Scott, of Cleveland, Ohio.—With reference to injuries of the ureters, there is one important point that has not been brought out. In the treatment of an injury to the urethra in a perineal section the proper thing to do is to keep the distal end open, because we are very much more likely to get a urethral fistula unless we do this. It seems to me, in the treatment of ureteral fistula, the same general principle applies, namely, that the ureters should be catheterized, and I would like to ask Dr. Frederick if such effort was made. I realize that catheterization of the ureters in his case would be difficult, because of the rearrangement of the proximal and distal end, due to the operation; still, if they became thoroughly adherent, it might be possible to catheterize them, and one would be much more likely to get a good result than if left entirely to nature unassisted.

Dr. Frederick (closing the discussion).—In response to Dr. McMurtry's question as to the incision of the uterus in the case of Cesarean section in which I lost the child, he wanted to know whether I would have done better if I had made a transverse rather than a longitudinal incision of the uterus. I will simply say that the placenta is more liable to be implanted upon one or the other surface, anteriorly or posteriorly, than to be in the fundus, and possibly would have been avoided in that way.

In reply to the remarks of Dr. Rosenwasser with reference to not having stitched the sac to the abdominal wall, I did not do that because I had torn the sigmoid clear across in cleaning out the sac, and I placed a Murphy button. The patient was not in a good condition. She had been septic for a long time, and I had to make a short operation. Consequently, I used the Murphy button, and as part of the sigmoid was denuded of peritoneum I could not make an ideal

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anastomosis with the Murphy button; I therefore feared my line of union with the Murphy button. That was the thing I was afraid of, and I purposely cut into Douglas's pouch and put drainage in there, so that if the button did get away I would have an outlet for the gut. That is the reason I did it. As the case terminated, it proved that I was wise in the course I pursued. I failed to state when the Murphy button was passed; it did not come through the rectum, but through the gestation sac, and the feces passed through the opening into the vagina for about one week, which showed the wisdom of my opening into the vault of the vagina rather than into the abdominal opening.

In reply to Dr. Cumston's remarks with reference to inguinal colotomy, in this case it would have been unwise. There was an occlusion of the sigmoid opening into the vagina, and by doing an inguinal colotomy we would have had a permanent inguinal opening. Why? Because three inches of the gut below the sigmoid opening into the vagina was absolutely and totally closed. When I put my finger into the reetum I ran into a closed cul-de-sac or end. It was not a stricture, but an absolute occlusion of the gut, and it was that piece of occluded gut I stitched into the opening where I had freed the sigmoid. I made myself conversant with the fact that it was absolutely occluded before I used it, because I did not want to have any dead space with mucosa there to produce a cyst later. Therefore, I could not make an inguinal colotomy. The only thing I could do for the patient was to make an anastomosis in that case. I do not believe it would have been possible to have made a tight joint by suture, because it was very difficult indeed to insert a Murphy button. In a place where there had been a high grade of inflammatory process that had occluded the gut, had sloughed out all of the left lateral half of the uterus and vault of the vagina, you can understand there was an immense amount of new tissue and adhesions, and I felt satisfied to be able to get the two halves of the Murphy button together and a tight joint under those conditions.

In reply to Dr. Scott's query as to catheterization of the ureters, I did not do it in the case I have reported, and I will tell you why. When the urine began to pass through the woman's vagina I had no idea that the two ends of the ureter were so near to each other. I had supposed that the sutures had pulled out, that the ends of the ureter were quite widely separated, and that the urine would continue to drain down through the fistulous tract into the vault of the vagina. But the subsequent course of the case showed the contrary. I made an opening into the distal end of the tube, through which I passed my

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sutures and drew the proximal end down into the distal end; I made a slit in the side of the distal end, carried some traction sutures from the proximal end to draw it into the distal end, and sewed up the slit in the side, and in the distention of the ureter, in all probability, that was the thing that leaked. The ends of the ureter remained in contact and were adherent. The urine passed out of the fistulous opening and drained there until the opening was closed finally by granulation. In the meantime the distal end of the ureter had become contracted from non-use. I had supposed, as I have said before, that the two ends of the ureter were not near each other, and that the distal end of the ureter had been closed by granulation, and I would have to do a nephrectomy. Just before that there was a sudden flow of urine into the bladder, the obstruction and contraction of the distal end of the ureter having been overcome by the intrarenal pressure. That is the reason why I did not catheterize the ureters.

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