INTESTINAL LESIONS ASSOCIATED WITH INTRA-ABDOMINAL OPERATIONS, WITH REPORT OF FIVE CASES OF RE- SECTION OF THE ILEUM.*

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In the course of any operation within the abdomen the surgeon may encounter various forms of intestinal complications. These complications may vary from a simple adhesion to an extensive destruction of the bowel necessitating resection of an entire segment.

The most common lesions are intestinal adhesions which attach the bowel walls to each other or to adjacent structures. These adhesions usually result from attacks of peritonitis, both local and general. They are often associated with fibroid, ovarian and other forms of intra-abdominal tumor. Tubercular peritonitis gives rise to the most extensive agglutination of the bowels among themselves. Pyosalpinx may extend to the rectum, sigmoid flexure and ileum, and so completely destroy the bowel as to necessitate a resection. The pus sac may rupture into the bowel at one or more points and establish drain canals with the intestinal tract. These are the gravest forms of bowel lesion and require radical procedures for their correction. Any effort made to remove the pus tube and infected tissue within the pelvis should deal with the damaged bowel wall on radical principles. Resection of the bowel should be made if the lesion is extensive. This method enables the surgeon to remove all of the infected material within the pelvis, and to establish a better communication between the resected ends of the bowel than can be secured by suturing the fistulous openings in the infected bowel wall.

In dealing with such conditions everything will depend on the character and extent of the bowel lesion. Adhesions may be slight, superficial or dense, and must be dealt with from the standpoint of the structures involved. Slight adhesions may usually be overcome by gently separating the attached surfaces with the index finger. When this does not overcome them they should be drawn apart and carefully divided with a scalpel or scissors.

When the bowel is attached to a fibroid or ovarian tumor a portion of the sac wall should be dissected off and left attached to the bowel. The denuded surfaces should be closed in with suture and be made to strengthen the walls of the bowel. Pus sacs attached to the bowel should be dealt with in a similar manner when it is possible to dissect off a portion of the sac wall and to cover in exposed surfaces. An effort should be made, whenever possible, to close in bowel lesions by covering the peritoneal layer with tissues borrowed from the adjacent structures, the object being to preserve the integrity of the intestinal tube. Small openings made by pus sacs, incised or lacerated wounds and denuded surfaces of the peritoneal layer can be closed in by carefully suturing the area of damaged intestine. The success of this work will depend largely on the care with which it is done and on the condition of the bowel itself. If the bowel walls are already seriously infected grave danger threatens the bowel lesion. If the bowel walls are healthy, a careful suturing promises good results.

In dealing with infected conditions the surgeon must

estimate the chances of non-union and leakage from rapid extension of the infected area. Abdominal drainage should be provided in advance for a possible leakage in this class of cases. I am sure I have saved more than one patient by having a drain canal provided for a leaking bowel which broke down after closure in the manner previously indicated.

Fecal fistulæ following abdominal operations are not uncommon, nor are they necessarily fatal lesions. I have had them occur in some seven cases, all of which recovered but one. Drainage was used in all of these cases. When the bowel is tied up in the tumor mass to such an extent as to prevent a removal of the tumor without serious damage to the bowel, the surgeon should either abandon an attempt to remove the tumor, or he should resect the bowel and remove the tumor. The latter procedure should be instituted if the resection can be done with a reasonable promise of success.

Accidental wounds inflicted on the bowel in the course of an abdominal operation present, as a rule, the simplest problems connected with bowel lesions. They may be incised or lacerated, and may involve either small or large areas. The lesion may be confined to the peritoneal coat or may extend through all three layers. The condition of the bowel should be carefully examined and the wound should be closed whenever possible by suturing the peritoneal and muscular layers with a continuous catgut or silk suture. The peritoneal surfaces should be neatly approximated by rolling them in longitudinally, in the case of a long incision, or by a purse-string-suture when a small puncture has been made.

Extensive wounds may require a resection of a part or of an entire segment of the bowel: In dealing with this class of wounds care must be exercised in adjusting the suture, not to narrow the lumen of the bowel to too great an extent.

In bowel lesions, whether great or small, the aim of surgery is to preserve the integrity of the bowel. A bowel should not be resected as a matter of choice. Well-pronounced indications should be present to warrant so radical a procedure. In looking for such indications one may fall short of or overstep a conservative position. In an attempt to patch up a bowel lesion it is possible to leave behind a condition of the bowel wall which will lead to results far more disastrous than a resection. The fear of a resection has, no doubt, led to much incomplete work in connection with intra-abdominal conditions in which the bowel was involved with such conditions. It has led to the abandonment of tumors in part or as a whole, which could have been removed by resecting the bowel or by dissecting off the bowel from its attachments. When such tumors have been enucleated and bowel lesions have resulted, too little attention has often been given to the condition of the bowel and to a careful correction of such lesions. In this manner conservatism has been anything else but conservative.

Unless the surgeon is prepared to deal with intestinal lesions associated with intra-abdominal conditions, he must either continue to do a considerable number of incomplete operations, or must overlook grave intestinal lesions which may jeopardize the results of his work. One can not honestly fall back on the records of death from bowel obstruction and septic or general peritonitis following celiotomy, and prove in any number of cases the absence of bowel lesions in such cases without a post-mortem investigation. We should take poor comfort from such indefinite causes of death. Symptoms

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are not etiologic factors. Intestinal obstruction, intestinal leakage and septic peritonitis are very closely related conditions in their etiology, and may often be traced to bowel lesions overlooked, disregarded or treated in a very hesitating way. The light was very imperfectly thrown on the condition of the bowel; it was left to chance or to nature's reparative forces. In a few hours the overlooked condition reveals itself in the symptoms which follow.

Minor lesions of the bowel are more apt to escape notice and attention than those of a graver character. It is not, however, the purpose of this paper to treat of minor conditions, as important as they are. I wish to call attention to those extensive lesions of the bowel which require a resection and an end-to-end approximation, with a view of showing that good results can be gotten in this class of cases which only a few years back were regarded as practically incurable. It seems to have been my misfortune to have had a larger series of cases requiring resection than usually falls to the lot of the abdominal surgeon. I am frank to say I have not invited such conditions, and if I except Case 1, am not responsible for the lesion which necessitated the resection of the bowel in any of my cases; they have occurred in connection with my abdominal work. If any criticism can be attached to the resection, it should apply to the indications calling for the resection and not to the general results. It might be shown that a more skillful operator could have saved one or more of these cases by a less radical procedure than was employed, but I must claim, in my own defense, that I could not have secured as good a result by any other method. In this claim I think we have the strongest argument in support of independent methods of work and of the personal equation of the operator. The claim can have little value in the absence of results favorable to the methods employed. To have saved four cases out of five in this series is not a record for self-congratulation, but a fortunate demonstration of the value of a simple mechanical appliance which, in the hands of any skilful surgeon, will yield as good results as were obtained in this series of cases.

It is my opinion that it is possible to save from 90 to 95 per cent. of cases if the resection is done on a healthy bowel, or when the infected portion of the bowel can be removed by the resection. The main element of success is in approximating the resected ends of the intestine with such neatness that the opposing surfaces of peritoneum are placed in the best conditions for union. This can be done if the bowel is free from attachments to the pelvic walls, and is not infected beyond the lines of union. In Case 4, which died, the distal portion of the intestine was tied down in the pelvis and the entire area of infection could not be removed. The bowel gave way at the mesenteric border, because a neat approximation could not be made. A small slough occurred at this point and leakage took place. The patient was also suffering from general systemic infection at the time of the operation which, apart from the bowel leakage, was sufficient to destroy life.

In Case 5 a leakage occurred and a fecal fistula was established, but the button kept the ends in approximation and escaped with perfect safety into the rectum. There was no systemic infection whatever in this case.

The value of the Murphy button resides in the ease and rapidity with which it can be applied. The resection and approximation can be made within from five to ten minutes. The element of time is an important consideration when the resection is done in connection

with an extensive intra-abdominal operation, as was the case in this series of cases. The after-results were not of an alarming character in the cases which recovered, after the shock of the operation had subsided. Intestinal disturbances were not marked; liquid food was given after forty-eight hours. Nausea and vomiting were not present after the effects of anesthesia had worn off; the abdomen was not distended from flatus and no symptoms of obstruction or of peritonitis were noticed. The bowels usually moved spontaneously after the third or fourth day. The button remained in the rectum in each case until removed by the finger. Search was made for it daily after the first week.

End-to-end anastomosis with suture is the ideal operation when a primary resection is made. It requires a higher degree of skill and a more elaborate technic. From the standpoint of the surgeon it is a more brilliant procedure. Whether it can show a larger percentage of recoveries in the class of cases reported in this series I am unable to determine, as statistics bearing on this point are not accessible. In a pure and simple end-to-end anastomosis for bowel lesions not associated with intrapelvic operations, the surgeon has ample time to prepare for a resection, and is favorably circumstanced for plastic bowel surgery. He should be able to secure a perfect coaptation of the serous surfaces by the aid of suture material. A healthy union is thus favored, and the anticipated dangers of a foreign body in the intestine are removed. The highest art of surgery is thus made possible. The ideal operation has been practiced.

With the button anastomosis approximation is secured by a clamping process in which a large foreign body is left within the intestinal canal. The behavior of this body is an uncertain element when viewed from a mental standpoint. A sense of insecurity rests with the surgeon from day to day until its fate has been determined by its escape into the rectum. This mental picture, so disturbing to many operators, presents many imaginary dangers. In point of fact the behavior of the case is a true index of the intestinal condition, and so long as this is favorable we may lay aside anticipations and await results.

The criticism that intestinal lesions occur in the form of cicatricial narrowing of the lumen of the bowel after recovery from the button operation has no force, so far as I can determine, in this series of cases. The button operation has been condemned as unsurgical by some who practice the end-to-end approximation with suture, on the ground, I take it, of its great simplicity and ease of application. If this view is correct, surgery is retrograding instead of advancing, for the full aim of surgery should be to simplify and perfect every line of procedure that promises the best results.

So far statistics can throw very little light on the relative merits of these two methods as practiced by different surgeons. Larger series of cases and associated conditions complicating the resection must be considered before a correct conclusion can be reached. It is encouraging to know that better results in intestinal anastomosis are now possible by both methods, and the surgeon should not fail to employ the one or the other in all cases of intestinal lesion requiring a resection. He should learn to deal with the intestinal tube as with any other organ or structure requiring surgical treatment.

The possibilities of intestinal surgery have been fully demonstrated. The trained surgeon must at all times be

prepared to deal with all forms and conditions of bowel lesions on sound surgical principles.

RESECTION OF THE BOWEL.

End-to-end anastomosis is the most common method now employed for restoring the continuity of the bowel when resection is done. Several methods are employed for connecting the divided ends of the bowel. One consists in using suture and the other in using a mechanical appliance known as the button. These two methods differ materially in technic, but they practically accomplish the same result.

When a resection is done for primary conditions, the end-to-end anastomosis with suture is perhaps the preferable procedure. When the resection is done in connection with the removal of other intra-abdominal procedures, such as hysterectomy, ovariectomy or pus tube, the button operation possesses a great value in the rapidity with which the resection can be made. Time is an important element when a patient is already shocked by a tedious operation. The Murphy button can be introduced in a space of five or ten minutes. The anastomosis with suture requires from twenty to sixty minutes. I have used the Murphy button in all the cases of resection I have made, with the most satisfactory results.

END-TO-END ANASTOMOSIS WITH SUTURE.

The bowel is resected straight through so as to present an even edge for accurate approximation. It should not project beyond the mesentery. Sutures are laid about one-twelfth of an inch apart and in a straight line around the bowel. Each suture is made to penetrate but not to perforate the fibrous layer of the intestine close to the margin. All the sutures are put in place before a single one is tied. The mattress suture, introduced by Dr. Halsted of Baltimore, presents the best method of approximating the serous surfaces. To secure an accurate apposition, an inflatable rubber cylinder is first introduced into the bowel so as to distend it to its normal caliber.

The mesenteric border is first brought together and neatly approximated. The mattress sutures which have been introduced around the bowel are now brought together and carefully tied. Before the last stitches are tied the air is let out of the inflated cylinder and it is withdrawn. The remaining stitches are now tied. The success of this procedure depends on the great care which is given to the passage of the suture and to the perfect approximation of the serous surfaces.

RESECTION WITH MURPHY BUTTON.

The bowel is resected at the point selected for end-to-end approximation. The resected ends are held in clamps placed one inch distant from the incised ends. A purse-string-stitch is now carried round the divided end of the bowel, so that the two ends of the stitch are brought together at the point farthest from the mesentery. The stitch should be accurately placed and should embrace the mucous, muscular and peritoneal layers of the bowel. One-half of the button, held in forceps, is introduced into the bowel, which is now drawn closely around the button until it is smoothly adjusted. The other end of the bowel is treated in the same manner. The two ends of the button are now adjusted, and as they are made to approximate, care must be taken to secure a perfect involution of the mucous surfaces, so that only serous surfaces are exposed. The button is next made to clamp the ends of the bowel evenly and firmly, so that a perfectly smooth surface of the serous surfaces is brought into coaptation. The mesentery is next united with catgut so as to secure a closure of all ex-

posed surfaces and proper union of the mesentery along the bowel. Care should be taken not to strip the mesentery along the bowel at any distance from the points of approximation; otherwise the nourishment of the bowel might be cut off, which would occasion sloughing at the line of proposed union.

In resecting the bowel all injured or infected portions should be removed so as to approximate healthy bowel tissue. The bowel should be carefully dried and replaced in the abdomen. The abdomen is next closed as for celiotomy.

End-to-end anastomosis with the Murphy button is employed to the best advantage in cases requiring rapid work, and when the resection is made necessary in connection with intrapelvic conditions in which the intestinal lesion is associated with the removal of other intrapelvic conditions. Resection of the bowel should follow after the removal of the primary condition.

End-to-end anastomosis with suture is the ideal operation for primary conditions of the bowel. It requires a most careful technic and is usually too slow in its steps for general adoption in cases requiring other operative procedure within the pelvis.

The following cases will illustrate the value of the Murphy button in end-to-end anastomosis when resection of the bowel was made necessary by the complications associated with intra-abdominal operations.

CASE 1.—Mrs. M., aged 21, primipara, was admitted to the Maryland General Hospital in the fall of 1895. She stated that seventeen weeks previous to her admission she had given birth to a child, in normal labor. Since the birth she had suffered from severe backache and intrapelvic pains, and had been reduced to such a degree of invalidism that she had left her home in western Pennsylvania to enter the hospital.

The physical examination showed a large retrodisplaced uterus and extensive bilateral laceration of the cervix, with a mucosanguinolent discharge from the uterus. The condition indicated an arrested involution of the uterus following a bilateral tear of the cervix, with retention of placental debris in the uterine cavity.

She was placed under anesthesia with a view of correcting the displacement of the uterus and of repairing the cervix. In the examination which followed, a sound was passed into the uterine cavity which detected the presence of a soft boggy mass in the uterus. The withdrawal of the sound was followed by a copious flow of bloody and serous fluid. It also brought on a firm contraction of the uterus. I at once dilated the cervix and passed in a curette to remove the uterine mass, but found little tissue that was removable. I next passed in the blades of a long placental forceps, thinking I could grasp the mass and empty the uterus. Withdrawing the forceps I discovered in the grasp of the blades a mass which I at once saw was a loop of the small intestine which was forced down into the vagina by strong uterine pains. Examining the intestine I discovered that it had been torn by the blades of the forceps and that it would be unsafe to return it into the abdomen. I recognized that I had not only to deal with a wounded intestine but with a ruptured uterus. The patient was at once prepared for an abdominal section. After opening the abdomen I found a large tear in the fundus of the uterus, filled with the intestine, which was now carefully drawn back into the abdomen, examined and placed in warm towels. In the abdomen I found large clots of blood and a fetus about 2½ to 3 inches in length.

An examination of the uterus showed that it would

not be safe to leave it. I at once removed it by a supra-vaginal hysterectomy. The intestine was again examined and in several places was so seriously wounded that I decided to resect it. I removed eight inches of ileum about one foot from the ileocecal valve and brought the ends into approximation with a Murphy button. The abdomen was next closed and the patient put to bed. She made an uneventful recovery and left the Hospital some five weeks subsequent to the operation. The button was removed from the rectum on the eighteenth day.

A careful examination of the uterus after its removal showed that this woman was about ten weeks' pregnant with an abnormal gestation. The fundal portion of the uterus was abnormally developed and greatly thinned out. In the introduction of the sound violent pains had been stimulated, and the uterus had ruptured at the fundus, expelling the fetus into the abdominal cavity. The intestine at once fell into this opening, and when I passed the forceps into the cavity I caught the intestine in the blades. I have not been able to see how I seized the intestine in any other way, as my manipulations were guarded and the instrument did not seem to me to penetrate deep enough to have gone through the rupture into the abdomen. On this point I can not be positive. Whatever the condition was, I was forced most unwillingly to deal with a ruptured uterus and with a wounded bowel. Any other line of action, after the condition of the patient was made known to me, would have led to the death of the patient.

CASE 2.—Mrs. L., aged 30, multipara, first came under my care in December, 1894, suffering with an enormous pelvic abscess and pus sac, which I removed after a very trying operation, but I was compelled to leave a small portion of the sac wall behind. She recovered from the operation and enjoyed excellent health for several years.

In the fall of 1896, she noticed a rapidly growing intra-abdominal tumor in the location of her first one, and at once came from her home in West Virginia and placed herself under my treatment. On examination I found a large cystic tumor filling her pelvis and extending well up into the abdomen.

An immediate operation was advised. The patient was sent to the Union Protestant Infirmary, where, with the assistance of the resident physician, Dr. Dunot, I performed an abdominal section. I found a large cystic tumor densely attached to adjacent structures at almost every point. It was adherent to the omentum, small intestines and uterus by such a firm union that I was forced to remove the entire uterus and to resect five inches of the ileum. The bowel could not be dissected from the tumor mass and was disconnected in attempts to remove the sac walls of the tumor. The ends of the ileum were approximated with a Murphy button. Both abdominal and vaginal drainage were employed, and the abdomen was closed.

This patient was greatly shocked by the length and severity of the operation, but made a complete recovery.

In the use of the vaginal and abdominal drain a fistulous opening was established in the rectum, which for some days discharged feces through both drain canals. Water injected into the rectum would flow through both the abdominal and vaginal drain. The opening closed spontaneously, and the patient made an uneventful recovery. The button was removed from the rectum on the twenty-fifth day¹.

¹ Since writing this paper I have learned of the death of this patient in January, 1899, but have been unable to learn the cause.

CASE 3.—Mrs. J., aged 25, and mother of one child, gave birth to her second child early in the month of April, 1897. She was delivered at her home in Orleans, Va., by her family physician, Dr. R. C. Buck. Her labor was normal and her condition apparently good until a few days after her confinement, when a small cystic tumor was discovered in her abdomen. This tumor increased rapidly in size within the next two weeks and the patient began to develop symptoms of intestinal obstruction. Nausea and vomiting were incessant, and no movement could be obtained from her bowels. She emaciated very rapidly and was hourly losing ground. Dr. Buck telegraphed me to come to Orleans immediately, to do an abdominal section. I made a very hurried preparation and reached the village at 10 o'clock at night after a ride of over 100 miles by rail and twelve of rough mountain road. I saw the patient before retiring for the night, and arranged for an early operation the following morning.

Her condition was very critical, but she had one faculty left which inspired me with hope. She was high-tempered. She informed me with a very strong and determined voice that she would sooner die than be "butchered," but she finally yielded to argument and became as plucky as she had been obstinate.

The surroundings were not of a character to inspire confidence in an operator. The house was small and the kitchen had to be used as the operating-room. The kitchen table, 5x9 feet, was pressed into service and the patient, vessels and assistant all occupied positions on it. Everything was made as clean as hot water could make them. There was the greatest abundance of pure hot water at my command and I made free use of it.

These details are mentioned to show what difficulties the surgeon must be prepared to cope with in country work, and as an encouragement to men who think an elaborate technic essential to success in abdominal surgery. I had one assistant who had never aided in an abdominal operation, and a country merchant as a second assistant. A colored woman boiled the hot water and placed it in bowls and wash-tubs as I called for it. A young physician living five miles distant came and gave the anesthetic.

The physical signs indicated the presence of a large ovarian cyst, which by pressure had given rise to intestinal obstruction.

After the section was made the tumor was drawn through the incision and tapped. The contents of the sac had the appearance and odor of liquid feces. The tumor had no connection with the uterus or ovaries, but was a part and parcel of the small intestine which drained into the sac. Its only pedicle was the ileum. It had performed the function of a reservoir for the fecal matter and was just on the eve of rupture from overdistension when removed. It became necessary to resect five inches of the intestine to remove the mass. Fortunately I had a Murphy button in my pocket, which made the approximation of the ends of the bowel a simple procedure. This patient made a slow recovery but is now living and in good health. The button was removed on the thirty-fifth day.¹

CASE 4.—Mrs. —, aged 35, widow, was admitted to the University Hospital in the fall of 1897. She gave a history of a long-standing intrapelvic inflammation. Her present condition indicated an acute attack of pus formation and general intrapelvic inflammation. The physical signs showed the presence of a large en-

¹ This patient has recently given birth to her third child.

cysted pus collection all around the uterus and filling up the entire pelvis. Her symptoms demanded an immediate abdominal section. The patient was prepared for an abdominal operation, and celiotomy was done in the amphitheater before a class of students.

The condition within the pelvis was complicated with a general infection of the peritoneum. Two large pus sacs were bound up in dense adhesions, which attached them to the uterus, omentum, pelvic walls and small intestine. It was with the greatest difficulty that the sac walls could be detached from the surrounding structures, but after careful dissection I succeeded in removing the sac walls and in clearing out the pelvis. The ileum was intimately attached to the sac wall, and was perforated at several points with drain canals, which had discharged pus into the intestinal canal.

It was necessary to resect over six inches of the bowel before two suitable ends for approximation could be secured. The peritoneal layer of the bowel was already inflamed, and I had grave doubt of success from an end-to-end approximation, yet it was the only procedure I could adopt in her case.

The ends were cut off as far away from the diseased portion of the bowel as I could get. The distal end—that next to the colon—was tied down in the pelvis by adhesions, and I was forced to place the button in the pelvic fossa. The abdominal gauze drain was packed into the pelvis to wall off the intestine from the infected area, previously occupied by the pus sacs, and also to provide for the escape of leakage in case of a break in the bowel at the point of apposition. The entire operation lasted over two hours, and the patient was greatly shocked when taken off the table. For forty-eight hours her condition seemed favorable. After the second day symptoms of general peritonitis and of septic infection set in, and she died on the fifth day.

A post-mortem was made to recover the button, and to determine the condition of the bowel. The abdomen and pelvis were filled with a serous exudate. The entire peritoneum was infected. At the line of approximation a small break in the bowel had occurred from sloughing. A fecal fistula had been made at this point. The button was *in situ* and union had occurred all around, except where the fistula had formed. The patient died from septic peritonitis.

CASE 5.—This case is one of unusual interest from a number of standpoints. During the first week in September, 1898, a bright mulatto girl, 18 years of age, was admitted into the University Hospital with the history of an acute gonorrheal infection. According to her statement her illness began the week prior to her admission. At the time I made my first examination she was in the midst of an acute salpingitis and general pelvic peritonitis. The physical signs showed a large cystic mass which completely filled her pelvis and extended well up above the pelvic brim. The tumor mass was tense, boggy and firmly fixed. Her symptoms demanded an immediate abdominal section. Preparation was made and the abdomen opened at my regular clinic hour, on October 5.

I found the intrapelvic organs a perfect mass of adhesions. The uterus, tubes, ovaries and a large coil of the ileum were tied up in such confusion that it seemed next to impossible to untangle and enucleate the mass. Pus had burrowed in every direction, and was in free communication with the intestines. The greater portion of the tumor mass was made up from coils of the bowel, which had gotten down in the pelvis behind the uterus, and was attached to the pus tubes at every point.

After a long and careful dissection the bowel was liberated from the incarcerated mass and drawn up out of the pelvis. It was folded up in the sterile towels and held out of the way until the diseased tubes and ovaries could be removed. After the toilet of the pelvis had been carefully made the bowel was examined with more care, and it was found necessary to resect twenty-six inches of the ileum. The end-to-end anastomosis was made with a Murphy button. The pelvis was then packed with a large gauze drain, and the abdomen closed around the drain canal.

The patient was on the table over two hours and was greatly shocked by the operation. Her condition for twenty-four hours was very critical, but after this she rallied from the shock, and at no time since showed an alarming symptom. The abdominal incision was infected from the pus, which unavoidably leaked out during the operation. This led to an extensive cellulitis and made the reopening of the wound necessary, as far down as the peritoneal layer. The gauze drain was removed after the fifth day. A fecal fistula was then discovered opening into the drain canal. Constant irrigation and repacking of the drain canal was kept up, and no trouble followed this condition. The patient's bowels moved regularly, and liquid nourishment was given forty-eight hours after the operation. Solid food was allowed after the second week. The button was removed from the rectum on the twenty-fifth day.

Of this series of five cases, four have recovered and as far as my information goes, are living at the present time. Case 1 has not been heard from for two years; when last heard from her health was good. Case 2 is living in Baltimore and has had no complications growing out of the resection of the bowel. I have seen her within the last thirty days.² Case 3 was living and in vigorous health when heard from less than six months ago. Case 5 is of too recent date to present a history of complications. The criticism urged against the Murphy button, that it leads to stenosis of the lumen of the bowel at the site of union and to intestinal obstruction, does not, up to the present time, apply in this series of cases.

SOME CLINICAL OBSERVATIONS IN RECTAL DISEASES.*

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There is no surgeon of much experience in rectal surgery but has encountered from time to time cases of

PRURITUS ANI

that defied all his efforts for relief. I have lately discovered, in several of my cases, a cause for chronic pruritus, which has heretofore escaped my attention, and may possibly not have been observed by others. I therefore speak of it in the hope that it may be a source of enlightenment in many cases that have perplexed physicians. I refer to the discovery—in three late instances—of a small superficial ulcer placed between the internal and external sphincters, showing on the posterior surface, but which may be also sometimes found on the anterior surface of the gut, and in the latter situation is very likely to be unnoticed. When one is at a loss to account for any case of pruritus ani, I would therefore advise that this little ulcer be looked for. I call it "sim-

² See foot note, p. 1194.

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