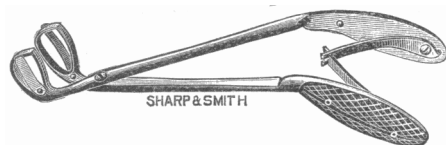


ward along the posterior edge of the vomer, its cutting edge, being of course, directed towards the rear. It is then pushed like a gouge backwards and downwards, and on withdrawal a fragment of the gland will be found in its concavity. It is at once reinserted a little more to one or the other side, and used again until the space feels clear as far as can be judged by sounding with the curette. If any remnants are left the operation is repeated after the traumatic congestion has passed off, that is, some five days later.

All operations with curettes are followed by abundant hæmorrhage, although this has never been alarming in my experience, in about 75 operations. It can always be checked by gargling with ice-water, and will generally cease spontaneously inside of some five or eight minutes. The operation is moderately painful. As I have learned from older children and adults, cocaine does not relieve the pain materially, but swabbing the pharynx up to the vault with a 10 per cent. solution of cocaine lessens the discomfort and retching produced by the instrument. I have never yet used an anæsthetic, having always been able to persuade the children to submit, since the pain is of very short duration. Hopmann,² however, has reported 69 operations on anæsthetized children, without accident. The entrance of blood into the larynx was prevented by not carrying the anæsthesia too far. A drawback to all curette operations is the difficulty of finishing the operation in one sitting on account of the speedily exhausted patience of the subjects. Sometimes four or five sittings are required to clear the naso-pharyngeal space.

The operation has become much more elegant in my hands since I have had a pair of cutting forceps constructed on the principle employed by Loewenberg. This author's gouge-forceps are so clumsy as to frighten patients, while the cutting end is too small to grasp much. Accordingly I have had a forceps constructed³ of a stout pair of scissor blades, the handles of which, about 15 centimetres long, are suitably bent so as not to obstruct the view. The



cutting end is a hollow triangle, base upwards, 17 millimetres high and 13 mm. wide, which arises 3 cm. from the scissor screw, sloping upwards and slightly backwards. The cutting edge is the upper base which is slightly curved and slopes backwards so as to conform with the roof of the pharynx. Small springs attached externally to the bent end prevent the fragments of tissue from falling into the larynx. The instrument is inserted behind the palate, the spring between the handles being allowed to separate the blades as far as possible. It is then pushed upward and closed, whereby everything pendant from the roof is snipped off as far as it gets into the grasp of the instrument. If the operator feels that the

scissors have cut off the tumor, the blades are at once opened and applied in another position; if it is not completely detached, it is torn off by extracting the instrument and then reinserting it if necessary. With reasonable tolerance on the part of the patient, the operation can be readily finished in one sitting. The hæmorrhage is less than in curetting, and the entire operation does not last as long. I have never had any accident or unintentional wounding of parts, not even pinching of the palate, in the fifteen times I have used this new instrument.

No unpleasant reaction has ever occurred in my experience. There may be slight oozing of blood for a short while, but this has always been insignificant. The pain ceases within a few minutes. The wound causes often some congestion of the nasal mucous membrane, so that the nose is more stuffy during the first night after the operation, especially if remnants of the pharyngeal tumors are left behind. Rarely have I seen slight fever within the first twenty-four hours, and never longer than within this period.

Central Music Hall.

ABDOMINAL SECTION FOR RUPTURED TYPHOID ULCER, AND FOR INTESTINAL OBSTRUCTION.

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My attention having recently been called to an article on this subject in the *Medical News* of November 26, 1887, and also to another article in the same journal of December 24, 1887, by Prof. Thos. G. Morton, of Philadelphia, I think it may be of interest to some to publish the following case, as I was not aware when I performed the operation that it had been done for that purpose.

James Daley, æt. 25 years, unmarried, of temperate habits, was taken sick at his boarding-house about October 1, 1887, and came under my care October 6, with high temperature, right iliac tenderness and gurgling, and with the other symptoms and general appearances of typhoid fever, which disease had been prevailing to some extent in the city. He persisted in having on his clothes and sitting about the rooms for five days, trying to fight off the disease, but finally consented, as his lodgings were not suitable for a sick person, to go to the Marshall Infirmary, where I was attending. His history, as given by the resident house surgeon, is as follows: James Daley, teamster, æt. 25 years, admitted to the Marshall Infirmary on the evening of October 11, 1887, suffering from typhoid fever, with temperature of 102°. He continued in apparently a comfortable condition, without complications, with temperature 102° mornings and 104° evenings, until the 15th inst., when he had a morning temperature of 104° and complained of nausea and right iliac pain. On the 16th increased pain in the right iliac region and tympanitic condition of abdomen. On 17th morning temperature 104°, hiccup and vomiting of prune-juice matter and bowels constipated and tympanitic, and still complaining of the abdominal pain; legs drawn up;

² Deutsche med. Wochenschrift. 1885, p. 572.

³ Made by Sharp & Smith, 73 Randolph St., Chicago.

cold, clammy perspiration, countenance pale and pinched and eyes sunken; was seen at noon by the attending surgeon, who diagnosed peritonitis from intestinal perforation.

I found him in collapse, with every indication of peritonitis from perforation, and stated the case fairly to him that he would certainly die, and to his question if anything could be done, replied that an operation, although offering very little hope, was the only thing left that could be done. He consented. As soon as the necessary preparations could be made he was anaesthetized with ether and the section made under strict antiseptic rules in the median line. On opening the peritoneum a considerable quantity of flaky dark-colored serum escaped. I at once went for the ileo-cæcal portion, and found perforating ulceration of the appendix near its base. I ligated this on the proximal side and removed it. On further search I found an oval perforation in the ileum about ten inches from the colon and about one line in its longest diameter. The intestine was apparently sound in the vicinity and elsewhere, but deeply injected and rather dusky in color. No other perforation could be found. I turned in longitudinally the portion of intestine including the perforation, and sutured its peritoneal surfaces by Lembert sutures and, after cleansing the abdominal cavity with a weak bichloride solution, closed the wound. The man expired before he had recovered from the anaesthetic. I was led to perform the operation on general principles, as the only thing to be done where intestinal perforation is recognized, appreciating the fact that it is a mortal accident, and that with the light and aid of antiseptics I have the faith and hope yet to save some case of the kind. The operation cannot impair the condition, and if the accident is recognized soon after its occurrence, there is a chance of success. Unfortunately, in this case, forty-eight hours had elapsed after the first perforation. Drs. Lomax, W. W. Seymour, H. Gordinier and N. F. Martin kindly assisted me in the operation.

NOTE.—The condition of the patient in this case was such that *time* was an important element in the operation, otherwise I should have practiced what I have before intended in cases of perforation of the appendix, and that is, after cutting off the process on the proximal side of the perforation, to invaginate the cut extremity and sew the peritoneal surface together with a close continued suture, thereby hoping to get a more reliable union of the parts than might obtain if the process was simply embraced in a ligature with the mucous surfaces in apposition.

Abdominal Section for Intestinal Obstruction.—Jas. E. Evans, unmarried, æt. 24, occupation moulder and of temperate habits, ate baked beans on Monday, November 28, which made him sick, gave rise to colic that night, and had no passage from his bowels since 24th or 25th of November, but continued in pain of a paroxysmal nature which required large anodynes to mitigate. He came under my care December 1; found him in bed suffering great pain, referred to the pit of the stomach, and he thought if that could be relieved he would be all right. I could make out no tumor there, and treated him on general

principles with poultices and anodynes of morphia and belladonna, and used large injections in the knee chest position which washed the whole colon out clean, and very little feculence was noticed. A stomach tube was kept in place in the descending colon to permit flatus to escape. His belly was at no time tympanitic, but was everywhere dull on percussion except in the track of the colon. This fact satisfied me that the small intestines were all full of fæces which it was impossible to move, and that the obstruction was in the lower part of the ileum. December 7, his condition as to vitality being good, pulse 80, temp. 99°, and unmistakable stercoraceous vomiting occurring, I obtained his consent to an operation, and at 9 o'clock in the evening, assisted by Drs. Gordinier and W. W. Seymour and J. W. Morris, I made the operation with strict antiseptic precautions and, with a median incision of four or five inches, went at once for the ileo-cæcal region and found the ileum tightly incarcerated under a diverticulum of the omentum about eight inches from the colon. I put two ligatures on the band which formed the constriction and cut between them, liberating the gut, which presented when released, the appearance of an ivory ring about it, the constriction had been so tight. This was accomplished in nine minutes from the commencement of the abdominal incision; some manipulations to coax the contents through the strictured gut occupied a few minutes more, and the wound was then closed by Dr. W. W. Seymour, who used for the first time a very good mounted needle invented by him for the purpose of abdominal sutures. Dry iodoform dressings were used and a broad bandage of adhesive plaster, completely encircling the abdomen and hips, such as I am accustomed to use for separation of the symphysis pubis after delivery, kept his parts comfortable and secure, and he at no time since betrayed any abnormal temperature or pulse. He was from December 25 to 29 troubled with diarrhœa, but is now well and dressed, and would be on the street were it not for the unusually cold weather (January 1, 1888).

Abdominal Section for Intestinal Obstruction.—Mr. Wheeler, æt. 77, widower, retired merchant, of temperate habits and large physique, had been suffering obstruction for one week, and when called in consultation with Drs. W. H. Hall and A. Hewett found him vomiting stercoraceous matter, and was in a condition of collapse, with pasty skin. The case was stated to him that he was dying and that nothing further could be done but an operation, to which he consented, and as soon as preparations could be made he walked from his bed to the dining room, where a table had been prepared under the chandelier, and after ether and every antiseptic precaution had been taken the operation was done through a very adipose wall and the intestines all found quite empty, with no tendency to protrude. I searched the ileo-cæcal region first, and not finding any trouble there, ran the small intestine through my fingers until I reached close to the duodenum, and there found the loop, some inches in extent, closely strangulated; it was, however, easily released, and the abdomen cleaned and closed. He was put to bed, had several

movements from his bowels, but never rallied from the collapse in which I found him. I think he would have recovered if operated on a day or two earlier.

Abdominal Section for Intestinal Obstruction.—Kehn, æt. 50, married, occupation pork butcher, intemperate, had obstruction several days, and when I was called in consultation, April 4, 1885, was in collapse and dying, having had stercoraceous vomiting twenty-four hours or more. The statement was made that nothing could save him but operation, and that that was doubtful, preparations were hastily made, and within half an hour I made the section through a fat abdominal wall and at once went for the ileo-cæcal region, which was found all right. The constriction was found by a little further searching, in the lower third of ileum, and was easily relieved by gentle manipulation with the fingers. The operation was made at 12:30 P.M., and he did not rally from the collapse we found him in, and died at 3 P.M. the same day. Drs. M. H. Burton, whose patient he was, and Drs. Akin and Morris assisted me. An operation a few hours earlier in this case would probably have saved him.

Abdominal Section for Supposed Perforation of the Appendix.—Mrs. O., æt. 45 years, a widow, in good health up to May 25, 1887, when she was seized with severe pain in the lower part of the abdomen, with great tenderness in the right iliac region and a bloated feeling all over the belly. She applied poultices, took castor-oil, which operated, and kept her bed until May 29, when I was called and found her with temperature 102° and pulse 115, abdomen tumid and very sensitive all over, but especially so in the right iliac region. She maintained the dorsal decubitus with limbs flexed. Satisfying myself by digital examination per vaginam and from her history that there was no hæmatocele, I concluded that there was peritonitis from intestinal perforation, probably of the appendix. It was difficult to learn by palpation the exact condition on account of the great sensitiveness, but manifest dullness all over the right iliac region and a faint sign of fluctuation seemed to indicate localized peritonitis with suppuration, and this was verified by aspiration May 31, when I proceeded, with the assistance of Drs. W. W. Seymour and H. Gordinier, to cut down between the anterior spine of ileum and umbilicus, and getting through the abdominal wall with an incision four or five inches in length, came upon a collection of pus mingled with fæces. The pus cavity extended down into the pelvis, but appeared to be walled in by the adherent intestines on its upper and inner border; in fact, the parts all around were so infiltrated and matted together that I was unable to find (without unwarranted disturbance) the source of the feculence, and contented myself by cleansing the cavity and closing the wound over a rubber tube of large calibre. The fever declined at once and in a few days disappeared altogether. The drainage-tube was kept in place three weeks and the cavity washed out through it several times daily. Feculence ceased to escape from the tube in ten days, and in one month she was able to walk a little, although she could not stand erect on account of intestinal adhesions to the abdominal wall. Her bow-

els were moved with difficulty from the same probable cause. September 20, 1887, an abscess made its appearance on the site of the abdominal wound, but healed in a few days after discharging its contents, which appeared to be simply pus. The woman has since that time remained well and active.

Abdominal Section for Obstruction of Bowels.—Mrs. R., æt. 52 years, mother of several children, was in ordinary good health up to November 25, 1877, when I saw her in consultation with her attending physician, Dr. H. C. Murphy. There had been complete obstruction of the bowels for twelve days. On the 26th, 27th and 28th every means we could devise failed to relieve the obstruction, but the patient would not consent to an operation until Nov. 30, when stercoraceous vomiting occurred and, the patient consenting, I opened the abdomen by a free median incision of the segment. In the lower segment there was great distension of small intestine and ascending colon, and also a great engorgement of their vessels. The obstruction was readily found at the portion contiguous to the gall bladder, and was included in a scirrhous mass involving a portion of the gut. Presuming this to be malignant, I did not attempt its removal, but brought the caput coli to the inferior angle of the wound and stitched a portion to the integument large enough to allow of a free opening being made in the gut and kept patent. A very profuse discharge of fæces escaped at once through the artificial opening made, and continued until her death twenty-four hours later. There did not appear to be any peritonitis; she was feeling well four hours before her death, when she accidentally discovered with her fingers the large pins which held the abdominal wound together, and she fainted and did not rally from the syncope or shock. Antiseptic precautions were not used in this case.

Explorative Abdominal Section.—Mr. M., æt. 74 years, a healthy, active man, was in his usual health up to thirty-six hours before I saw him in consultation with Dr. M. H. Burton, his attending physician, and with Drs. W. Akin, J. W. Morris, H. Gordinier and Sabin, July 31, 1885. He was suffering great pain, and his position and rational and physical signs indicated peritonitis from perforation. Bowels constipated, abdominal walls hard and tympanitic, pulse frequent and feeble, and general indications of approaching collapse. I made median section in the lower segment at noon July 31, and at once went for the ileo-cæcal region, expecting to find perforation of appendix. None, however, was found either in it, or the colon, or small intestine, or gall bladder. Turbid serum escaped in considerable quantity when the peritoneum was opened, and the intestines and reflected parietal peritoneum showed acute peritonitis. The abdomen was washed out with a weak carbolic solution and the wound closed, leaving in its lower angle a drainage-tube dipping down into the bottom of the pelvis, through which his abdominal cavity was irrigated with a weak solution of chlorinated soda. The peritonitis, however, continued, death taking place forty-eight hours after the operation. There was no history or appearance of injury, and the cause of the fatal peritonitis is conjectural.

Case 2 illustrates the advantage of early operative interference while the vital forces are good; for notwithstanding the *serious* character of the strangulation in that case, he made rapid and uninterrupted recovery; whereas in cases 3 and 4, the obstruction was from adhesions that were comparatively slight, so that they were relieved by gentle manipulation, and yet the cases proved fatal; because operative interference was deferred until collapse was announced. Case 1 was in an almost hopeless condition when seen by me. If I had operated on him on the 15th inst. he would have had a fair chance of recovery. I hope soon to read of some one doing this successfully for typhoid intestinal perforation. If you are sure that perforation has taken place, do not hesitate, for the operation cannot impair, but certainly *improves* the chances of recovery.

MEDICAL PROGRESS.

ADVANTAGES AND RISKS OF PURGATION DURING CONVALESCENCE FROM ABDOMINAL SECTION.—MR. JOHN D. MALCOLM records an interesting case bearing on this subject. The patient, a woman, æt. 57 years, had had an ovarian tumor removed. On the evening of the third day, and all through the fourth day, there was a tendency to sickness and abdominal distension, but flatus passed freely from the rectum. On the fifth day that portion of the bowel was found to contain feces, and a small enema produced a copious evacuation, after which the feeling of sickness and the distension passed off. The action of the bowels was followed by considerable pain in the right groin about the position of the pedicle, and the temperature rose in a few hours to 100° in the axilla, but again gradually fell to 98° on the seventh day after operation. The bowels moved seven times between the fifth and tenth days, and much flatus also escaped. During this time, however, the pain in the right groin increased, until the patient could not bear the slightest pressure over this part. The rest of the abdomen became slightly distended, but was free from tenderness. The administration of $\frac{1}{8}$ of a grain of atropia and $\frac{1}{12}$ of a grain of muriate of morphia, repeated every four hours, eased the pain; but the appetite became very bad, and the patient felt constantly sick after the eighth day. She also lost strength, and her pulse, which had been down to 84 and of good character, gradually rose to 100, and became very feeble. On the tenth day her temperature, which had not been above 98.6° for two days, also began to rise a little, and reached 99.6° in the axilla at 9:30 A.M.; she had been very restless all night, could not take any food, and felt very sick, while the abdomen had become more distended. This grouping of symptoms after abdominal section I have learned to associate with obstruction in the bowels, which may lead to a rapidly fatal termination of the case. In the belief therefore that my patient was in extreme danger from this cause, and that the best method of treatment of this condition at this

stage is by the administration of a purgative, I gave her a pill containing $\frac{1}{3}$ of a grain of calomel and as much jalap, 1 grain of compound extract of colocynth, 1 grain of extract of aloes, $\frac{1}{8}$ of a grain of jalapine, and a little ginger. The patient had frequently used similar pills, prescribed by her own medical attendant, Dr. Morley, of Blackburn, and they had moved the bowels gently during health. On this occasion the pill produced two small loose motions, and a dose of Hunyadi water, given next morning, was followed by other loose motions. The last of these was at 5 P.M. on the seventh day after operation. Twelve hours after the pill was given the temperature had risen to 100.6° in the axilla, perspiration was extremely profuse, and the patient had become alarmingly weak, but she was then able to take food without feeling sick. After the bowels were quiet 20 minims of tincture of opium were given by the rectum, and the patient had a good night's rest. She was much stronger next morning, and this improvement continued. The pain in the right groin, however, became more severe, and the tenderness radiated over the abdomen to some distance from this part. The temperature continued feverish but irregular until the thirteenth day, when it fell to normal and remained so. On this day also the pain shifted upwards and towards the right loin, and next morning there was only slight tenderness on pressure in the groin, and none in the loin. Now, however, the patient at once complained of pain when I applied pressure over the colon in the region of the gall-bladder. The seat of tenderness afterwards shifted from time to time along the course of the colon, and finally was found low down in the left groin, on the fifteenth day after the operation. The bowels had then been quiet for four days and I warned the patient that she would probably soon have an action of the bowels with considerable pain. That afternoon several large, very hard fecal masses passed into the rectum, whence they were removed with some difficulty by the nurse, after which recovery was uninterrupted.

This case is very instructive in connection with the question of the administration of purgatives during convalescence from operations for abdominal tumor. It is evident that the masses of feces which were removed on the fifteenth day after operation were the cause of all the difficulty and danger in this case, by producing a partial obstruction in the bowel. The fecal accumulation had been impacted in or near the cæcum, and the efforts of the bowel were insufficient to remove it, probably on account of the condition of paresis of the intestines which I have shown follows abdominal section, and is "an important factor in the production of obstruction of the bowels in these cases."¹ When, however, the impacted mass was dislodged by the aid of the purgative medicine, the sickness and distension at once disappeared. At the same time the temperature of the patient rose distinctly, and this in spite of a most profuse perspiration; pain in the groin became more severe and diffuse, and the patient's strength failed

¹ Vide abstract of paper read before the Royal Medical and Chirurgical Society, the Lancet, Oct. 29, p. 860.