

SOME COMPLICATIONS ARISING SUBSEQUENTLY TO CÆLIOTOMY.*

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I HAVE thought the subject I have chosen for my paper might be of interest to the Fellows of this Society, as scarcely a meeting is allowed to pass without the exhibition of numerous specimens of some growth or organ having been removed by cœliotomy, and in a very large proportion of instances the operations are reported to have been attended with a successful issue. Many of these specimens have been removed only a few days or hours before exhibition. It is very rarely, however, that we hear anything of the after-history of these patients, and I have often thought and wondered if all of those from whom these specimens have been removed have been so much benefited as they themselves anticipated or the operator could have wished. I think it will be generally admitted that often after an hysterectomy, either abdominal or vaginal, an ovariectomy, or even an oöphorectomy, or the removal of the tubes for hydro- or pyo-salpinx, patients return after some months complaining of acute abdominal pains, referable most commonly to the region of the pelvis, but not infrequently to other parts of the abdomen. On most careful examination nothing can be found to account for these troubles, and often they are attributed to neurosis, and the patient told in time her pain will cease, and this undoubtedly in many instances is true, but too often the patient continues to suffer for an indefinite period.

It is very desirable, therefore, to try and discover the causes of these troubles, and it is for this purpose that I venture to lay before the Society some of my experiences.

It is, indeed, probable that in a large number of cases of cœliotomy subsequent adhesions occur—most frequently to the parietal wound, or to the stump left from the operation—the frequency in which they occur no doubt depending somewhat upon the presence of slight sepsis. The more aseptic the operation and the less the peritoneum is injured or manipulated, the less likely are these adhesions to occur, and if they do occur they will be slighter and more fragile. I cannot, however, help thinking that some patients are much more liable than others to contract adhesions. When adhesions have

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formed, pain is pretty sure to follow to a greater or lesser extent, and the surgeon should, when operating, bear this in mind, and should pay especial attention to the toilet of the peritoneum before closing the wound. He should be careful to see that no blood-clot is left either in the pouch of Douglas or between the intestines, and above all to be careful to draw down the great omentum over the intestines, as less trouble will arise from adhesion of this structure than if by any accident a loop of intestine becomes glued to the wound.

If the case be one of ordinary ovariectomy or oöphorectomy, the stump left after removing the cyst, tube, or ovary should be carefully stitched over and buried so as to completely cover it in with peritoneum. The same care must be taken in an hysterectomy, the removal of a kidney or appendix, to see that the peritoneum is neatly united over the seat of operation, so as to present no uncovered surface. For this stitching ordinary sterilized catgut should be used, not silk.

The adhesions formed after cœliotomy may not only be the cause of pain and great discomfort, but also of serious peril to the patient. I have in a few cases had to open the abdomen a second time for the relief of pain, and in every case have found adhesions, which on being divided or separated have given relief; I have seen the same thing occur in the cases of other surgeons. I have also had to reopen the abdomen for the relief of intestinal obstruction, caused either by a band of lymph stretching across and constricting the bowel, or for a volvulus, the result of adhesion of two portions of the bowel, owing probably to the deposit of a blood-clot. In one case the abdomen was opened no less than five times, thrice by myself and twice by another surgeon. This patient was operated on in the first instance for fibrocystic disease of the ovaries, for which oöphorectomy was performed; she made an excellent recovery and left the hospital. Subsequently, about three months after the operation, she returned complaining of acute pain and much distension; she was treated for some weeks, but the pain becoming more distressing, she was taken into the hospital and the abdomen reopened. A band of lymph was found stretching from the omentum to the stump of the left side; this band clearly caused constriction of the sigmoid flexure when that portion of the intestine was loaded. The band was ligatured in two places and removed. A good recovery resulted, but in a short time she again returned complaining of acute pain in the abdomen. I being out of town, she migrated to another hospital, where her abdomen was again opened and adhesions discovered; these were torn down, and a good recovery

resulted. She was subsequently, I believe, operated on again by the same surgeon, and more adhesions found. After this she remained well for some considerable period, when she consulted me again, complaining that it was with the greatest difficulty the bowels could be moved, always requiring medicine and enemata, and giving her great distress. On admission, the abdomen was distended, especially along the site of the ascending colon, and chiefly at the hepatic flexure. At what I may call the last operation she had had, the incision was made over the right semilunar line. From the symptoms it was considered an adhesion probably existed, causing either a kink in the colon below the point of protuberance, or a band existed causing constriction.

On operating, adhesions were discovered along the whole length of the former incision; the omentum was adherent, very much thickened, and drawn considerably to the right, causing the transverse colon to be dragged down, thus creating an acute flexion at the hepatic flexure of the colon, and it was readily seen that if the bowels became at all constipated, great pain and difficulty would be caused. The adhesion was carefully divided and the omentum freed, great care being taken in stitching the parietal peritoneum first with catgut, and the other layer of the parietes, layer by layer, with specially prepared ten-day gut. The patient experienced immediate relief, and has continued well since, and I trust will remain so.

Another cause of trouble after cœliotomy, more especially after hysterectomy, is due to adhesion or kinking of the ureter, or the possible inclusion of the ureter in one of the ligatures. This complication gives rise to very great distress with hydronephrosis. In one case I have seen complete occlusion of both ureters; this case was one of very large sloughing fibroid of the uterus, in which abdominal hysterectomy was performed. As no urine was voided for twenty-four hours, after consultation, it was decided to open the abdomen again, suspecting that the ureter might have been included in the ligature which was applied to the uterine arteries. On examination, however, it was discovered that the ligatures were quite free from the ureter, but on being tied the tissues were dragged so as to cause a kink in the ureter, which was dilated considerably above. Upon liberating the ligatures the kink was relieved, and urine at once passed into the bladder. This operation, at which I was present, made a deep impression on my mind, and impressed me with the wisdom in any future case, when no urine was passed and it was proved by catheterization that none had

entered the bladder, of at once placing the patient under an anæsthetic and reopening the abdomen with a view of examining if there was any constriction or kinking of the ureters.

To avoid possible risk of such an accident I think it is well not to ligature the uterine arteries until the anterior and posterior flaps of peritoneum have been reflected from the uterus, when the vessels are readily felt running up the side of the cervix, and can be ligatured without including other tissues. I do not agree with the dictum laid down by some authorities to cut across the vessels before ligaturing, and then catching the bleeding-points, as in the first place a very large amount of blood will very quickly escape, filling the pelvis, and often these vessels, from having some considerable tension placed upon them in pulling the uterus with its tumour out of the pelvis, retract very much, and I have seen considerable difficulty experienced in catching them up, and a large quantity of blood lost before they were secured.

It must not be lost sight of that sometimes the appendix becomes involved, and all the symptoms of acute appendicitis may occur after the removal of the appendages on the right side. Indeed, sometimes without operation the appendix has been found adherent to the tube or ovary. I have had two such cases occur in my practice. In one the appendix was firmly adherent to the fimbriated extremity of the tube, and in the other it was attached to the ovary, apparently where one of the Graafian follicles had discharged itself.

I had occasion to operate on a patient who had had her right tube and ovary removed for a pyosalpinx by a surgeon. She had made an excellent recovery, and all went well for some two or three months, when she was seized with acute pain in her right iliac region, and all the symptoms of acute appendicitis. I advised immediate operation, which was done, and I found the appendix firmly adherent to the site of the first operation, and it was with some difficulty that I was enabled to release it. This, however, was safely accomplished and the appendix removed, and the patient made an excellent recovery.

Another cause of pain is sometimes due to the ovary, one or both of which have been left after an hysterectomy, becoming adherent to the floor of the pelvis at the line of union of the peritoneum. This, I think, is more likely to occur when silk is used for the stitching of the peritoneal flaps. I always prefer using catgut specially prepared for this. In case of complete hysterectomy it sometimes happens that a loop of intestine, or more frequently the omentum,

becomes adherent to the site of the opening into the vagina, causing, in the case of the bowel being adherent, acute flexion and possible obstruction. This is more likely to occur in cases of vaginal hysterectomy if care is not taken to draw the peritoneal flaps well down into the vagina. In the early days of vaginal hysterectomy I met with two or three such cases.

To avoid the trouble of adhesion I have for some time used specially prepared catgut for all suturing of the peritoneum, also for ligaturing any vessels or adhesions that may exist, using fine silk only for the ligaturing of the ovarian and uterine arteries. I am most careful to bury all stumps of tumours, and to suture very carefully any portion of peritoneum that may have been torn and cut. The parietal peritoneum I close with a continuous suture of catgut, then place about three to six interrupted sutures of specially prepared gut through the fascia and muscle, letting them be about 1 inch apart; next I unite the fascia with a continuous suture of catgut; and finally a continuous suture of fine silk or horse-hair to unite the edges of the skin. These are removed on the tenth day and a strip of plaster applied.

With respect to the after-treatment, I always as a routine treatment give grs. v. of calomel the night of the day after operation, and a soap-and-water enema on the morning following. The importance of getting the bowels to act within thirty-six or forty-eight hours after cœliotomy cannot be overestimated, whether by means of calomel or saline aperients perhaps it does not signify; one operator prefers one, another operator likes another. To the late Lawson Tait, perhaps, is due the credit for insisting on this, but it will be remembered he introduced the giving of purgatives for the treatment of peritonitis; and here, I venture to think, he mistook tympanites due to paresis of the bowel, which so frequently occurs after cœliotomies, for peritonitis. Paresis of the bowel and tympanites, as we all know now, is a very common complication after these operations, especially when there have been many adhesions, necessitating the undue manipulation of the intestines, and a very troublesome symptom it is, often requiring several doses of aperient and the repetition of turpentine enemata before a proper action can be obtained. Distension, however, can often be relieved by the introduction of the long tube *per anum*, and I am in the habit of allowing a short enema-tube to be inserted and left in the rectum, so that the flatus may come away more readily.

Many cases that died after operation in the early days of abdominal section, and which were returned as having died of peritonitis, I am

convinced really succumbed to this cause—tyimpanitis due to paresis of the bowel owing to the practice of giving opium after the operation with a view of keeping the bowels confined for several days.

In the limits of this paper I have only ventured to point out a few of the complications that are so often met with after these abdominal operations; had I extended my observations to those complications which sometimes follow operation for gastrostomy, gastro-enterostomy, or other intestinal operations, or for operations on the kidney, gall-bladder, and the like, all of which, by the way, are practically outside the domain of gynæcology, a paper of indefinite length might be written.

The question which naturally arises is, What is best to be done for those patients who come to us so frequently complaining of these after-claps? and what is the best and most appropriate treatment? Possibly I shall be met by some operators that they operate in such a way that they preclude the possibility of such complications. If there are any such, I shall be glad to hear how they manage it, as I must candidly admit that I am occasionally confronted with patients who suffer in the way I have described, and have several times been consulted by patients so suffering who have been operated on by others. Personally, I always hold out hopes, unless there are some acute and pressing symptoms in which delay would endanger the patient's life, that the pain, etc., complained of will in time disappear; and doubtless in many cases this is so, so that I should counsel not too early operative interference.

Should, however, acute symptoms occur after an operation, or if the patient suffers from more or less constant pain, so that her happiness and usefulness is imperilled, I should not hesitate to re-open the abdomen, and if adhesions exist to carefully divide these, and either ligature or stitch them over. In the case of omentum I think it better after ligaturing to fold the end over, fixing with a few catgut sutures, so as to cover the divided point with peritoneum, treating the distal end in the same manner if practical.

One other not uncommon after-complication is ventral hernia. This, I am pleased to say, is not so frequently met with now as formerly, and undoubtedly this is due to the greater care which is now taken in the technique of closing the parietal wound and the more rare use of drainage-tubes. I have no doubt that the fixing the tissues in distinct layers with catgut, prepared in such a way as to insure it lasting for some ten days before becoming absorbed, is by far the best method, and I cannot lay too much stress upon the necessity of first being most careful to stitch the peritoneum with

a continuous suture, so as to prevent any of the tissues being exposed to the peritoneal cavity. For this ordinary catgut is quite sufficient, as the peritoneum firmly unites in about thirty-six hours. Next, to bring the muscular tissue and fascia together by interrupted sutures of ten-day catgut, and then a continuous suture, to insure the close approximation of the superficial fascia; and, lastly, the continuous suture for the skin, with horse-hair or fine silk.

I never now use silk for buried sutures, as, let it be prepared ever so carefully, it will occasionally give trouble by establishing stitch abscesses, which are always tiresome, as retarding the convalescence of the patient, to say nothing of the pain.