

INTESTINAL COMPLICATIONS IN GYNECOLOGIC OPERATIONS

LEWIS S. McMURTRY
LOUISVILLE, KY.

The intestinal complications associated with inflammatory diseases of the pelvic organs are the most serious as well as the most common of all the possible complications of gynecologic operations. Not only do these complications affect those portions of the intestinal tract which occupy the pelvis and are normally adjacent to the uterus and its adnexa, but remote portions of the intestines, such as the transverse and descending colon, may under exceptional conditions be involved.

As a rule the pathologic conditions leading to intestinal involvement under this head are inflammatory in character, and consist of adhesions of varied type with the sequelæ resulting therefrom. These adhesions may be flat and spread over a wide area of peritoneal surface; they may consist of bands producing varying degrees of obstruction; or they may cause stricture of the imprisoned bowel, and in rare instances anastomoses and fistulas may follow organized adhesions.

In cases of large tumors extending into the upper abdomen, adhesions to the intestines often present exceptional difficulties in the operative procedure for their removal. This relates more particularly to ovarian tumors, especially cystomas with twisted pedicle and suppurating dermoid cysts. In the enucleation of uterine fibromas that have developed between the folds of the broad ligament and extended beneath the peritoneum, injury to the mesentery such as to necessitate resection of that portion of the intestine which has been deprived

of its circulation may be unavoidable. I could refer to several cases in my personal experience in which this procedure became imperative after the enucleation of large tumors with adherent and deperitonized intestines. In the majority of cases of this class it is practicable to release the intestines from the tumor by dissecting away from the tumor some of the cyst-wall or capsule, but in some instances this expedient will fail and the operator will suddenly find himself confronted with lesions necessitating extensive intestinal restoration.

In advanced carcinoma of the ovaries and in tuberculosis of the peritoneum originating from the fallopian tubes, adhesions are universally found matting together the intestines in the diseased area. In these conditions the separation of adhesions is rarely indicated. Interference with the function of the bowels seldom results from tuberculous peritonitis with adhesions, and when malignant disease of the ovaries has extended to the intestine it is beyond the scope of operative intervention. The time limit of this paper forbids any detailed consideration of appendicitis as a complication of operations on the pelvic organs. The frequency with which the appendix is either primarily, coincidentally or secondarily involved in tubo-ovarian inflammations is generally recognized by surgeons, and is one of the most forceful indications for the general application of the suprapubic instead of the vaginal approach to the pelvic organs.

The isolation of a septic focus within the peritoneum by adhesions is one of the most efficient of Nature's safeguards, thus shutting off the general cavity and limiting the infected area. These adhesions are most extensive and dense at the focus, and shade off in thickness and density as the distance increases from the focus in all directions.

The omentum and sigmoid flexure of the colon are the parts most generally, almost universally, involved by adhesions. When a septic focus is established any where

within the peritoneum the omentum safeguards the general abdominal cavity. So efficient is this function of the omentum that it has been called the "policeman of the abdomen." The anatomic relations of the omentum to the abdominal viscera provide for this function. Likewise in the pelvic basin, the sigmoid flexure with its long fan-like mesentery performs the same function by forming adhesions about a septic focus and providing a barrier to protect the general peritoneum.

Adhesions to the sigmoid and rectum are so universally associated with inflammatory diseases of the tubes and ovaries as to make this condition distinctly gynecologic. Stricture of the rectum may result, and fistulas sometimes follow the rupture of an abscess into these terminal portions of the intestinal tract.

A distinct form of peritoneal adhesions for surgical consideration is an extensive gluing together of the intestines subsequent to a storm of general peritonitis. That extensive adhesions, as a rule, are completely absorbed after removal of the septic focus is well known, but in exceptional cases Nature fails to complete this work. This may obtain with neoplasms, such as ovarian cystomas and uterine fibromas, as well as with the more direct infections. These patients suffer with intestinal cramps and distention, and the operative treatment presents exceptional difficulties.

Fibrinous bands producing obstruction may result from incomplete absorption of adhesions. These are most commonly found in the region about the uterus and in the appendical area of the right lower abdomen.

PROPHYLAXIS

1. In so far as compatible with safety, operations should be avoided in the acute stage of inflammatory diseases and deferred to a period when Nature has removed gross exudates.

2. Unnecessary handling, wiping and packing off of peritoneal surfaces should be avoided in operations.

3. The violence of retractors and unnecessary exposure should be avoided.

4. Blood-clots beget granulation-tissue and adhesions and should be gently and carefully removed.

5 Drainage, especially with gauze, produces adhesions and should be applied only when definitely and positively indicated.

TREATMENT

In dealing with adhesions in the course of operation, the greatest care should be observed to limit traumatism. Whenever practicable this should be done with the aid of sight, and deliberately. The greatest source of disaster is in unrecognized injury to the intestinal coats, followed by perforation, leakage and general septic peritonitis. A thorough knowledge of modern technic as applied to operations on the intestines should be observed in dealing with injured bowels, and especially with stricture and abscess perforation.

So far as existing knowledge permits, we have no reliable method of preventing secondary adhesions, that is, of agglutination of surfaces separated. Perhaps the most efficient procedure is the application of a layer of sterilized petrolatum over the denuded surfaces.

Atherton Building.

ABSTRACT OF DISCUSSION

DR. J. WESLEY BOVÉE: If one visits the different clinics in this country alone and sees the recklessness exercised in abdominal surgery in the way of traumatism to the contents of the abdomen, he is struck forcibly with the necessity of improvement in their technic; and, perhaps, he himself is more cautious with his own when he gets home. One sees the finest surgeons in the country neglecting this important point. I would especially emphasize the feature of reckless handling of the intestine, frequent sponging and applications of great quantities of gauze in the abdominal cavity when it can be avoided in the way of walling off, the careless walling off at the beginning which requires repetition during the process of operation and occasionally the use of dry gauze for this purpose. We see many surgeons doing abdominal work who do not pay any attention to whether the

gauze is wet or dry. If they would stop to think they would realize that the gauze soaked in salt solution is much less irritating to the serous layer than the dry gauze. Frequent sponging of the area denudes that surface of its outer layer of endothelium and adhesions are liable to follow. I believe that many of the intestinal adhesions we find when we open the abdomen had better be left alone. There are times, of course, when we cannot follow this plan, but we should when we can. At some places, of course, in the intestinal tract we will feel almost sure there will be strangulation. The important point in the pelvic portion is the manner of covering those surfaces with gauze and using dependent drainage. The adhesions thus formed over the gauze, if the intestines and omentum are laid cautiously over it, are quickly dissipated after the drainage is established.

DR. W. H. WATHEN, Louisville: In operating in the presence of adhesions we should be careful in separation so as not to cause too much traumatism. When the peritoneum is denuded or torn, it should be carefully sutured so as to cover in all raw surfaces. This will prevent adhesions which would otherwise follow. Injury to the intestines or peritoneum can nearly always be avoided, if we have no adhesions before operating, by carefully walling off the intestines from the pelvic cavity before we operate on the uterus or its adnexa. Make a gauze coffer-dam between the intestines and the pelvic structures before beginning to remove the pathologic process. When this is done the operation is free of traumatism to the intestines. Careful sponging will do no special harm when you have a coffer-dam well around the infected area. The sponge can then be introduced to the bottom of the pelvis without injuring the intestines.

DR. J. H. CARSTENS, Detroit: One of my greatest troubles is to have the patient kept profoundly under an anesthetic. If the anesthetizer lets the patient get out even a little, the patient presses down and the intestines come out and come into view and you have to handle them and put them back. Put the patient profoundly under the anesthetic. In the Trendelenburg position the intestines will be out of the way, but insist that the patient be kept under. I firmly believe that more persons have died from injury and infection of intestines, caused by insufficient anesthesia, than by too much. I use aristol or subgallate of bismuth for covering over some of these raw surfaces that I cannot cover with peritoneum. I agree with what Dr. Bovée has said about adhesions. I sometimes separate a little and dig down into the culdesac and let the rest alone.

DR. H. O. MAPCY, Boston: I am more and more inclined to the return to the well-selected sea sponges. They are less irritating than gauze and with care are made aseptic. A large flat sponge helps to make the coffer-dam and walls off

better than gauze. One cannot altogether do away with gauze, but when used, as Dr. Bovée suggests, it should be wet with salt solution. The peritoneum should be closed with light running sutures so that there may be no bare surfaces. I use aristol. I do not think it does harm and adhesions seem less likely to take place. Restore the intestines to as nearly a normal position as possible, and replace the omentum so that it gives its normal protection to the intestine. These are little points in technic often overlooked and seldom mentioned in text-books.

DR. LEWIS S. MCMURTRY, Louisville: It is apparent from a study of this subject that the last words have not yet been spoken on the treatment of these complications. It is a common observation to observe some painful sequel of an abdominal operation. In almost every instance the patient has been educated to believe that the pain is caused by adhesions. We often attribute to adhesions symptoms due to other conditions. It is not uncommon to see an abdomen over which has passed a terrific storm of acute inflammation, leaving very few adhesions. In other instances will be found adhesions exceedingly painful, and presenting great difficulty in their operative treatment. I feel confident, therefore, that we have here a subject that still merits study and careful consideration. My object in selecting this subject was to awaken interest with a view to obtain more light than at present obtains.