

## A METHOD OF ANASTOMOSIS BETWEEN SIGMOID AND RECTUM.

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THE inaccessibility of tumors of the lower sigmoid at or near the junction of rectum is attested by the unsatisfactory results following the usual methods of operating on this class of cases. Resection of the growth with an end-to-end anastomosis has always been attended by a high mortality: a permanent colostomy renders the patient a nuisance to himself and friends, at least for a time; and any attempt to join the cut end of the proximal sigmoid to the sphincter ani means the unnecessary sacrifice of the rectum. The following method of dealing with such cases has been employed during the past three years at St. Mary's Hospital by Dr. W. J. Mayo, with satisfaction (*Montreal Medical Journal*, October, 1909).

For some years it has been the practice here when the lower sigmoid has been accidentally injured, especially where the bowel wall has been infiltrated with inflammatory products, to assist the closure of the intestinal opening by the use of a tube support. A three-fourth inch rubber tube with a lateral eye near the extremity (to permit the escape of gases should the end become obstructed) is passed through the anus and rectum up beyond the site of operation, and there anchored by a catgut stitch. This served so well to carry off the intestinal products and proved to be such an admirable splint for the sutured bowel, that the idea was suggested of using the tube following extensive resection of the sigmoid. The successive steps in the operation can be briefly tabulated as follows:

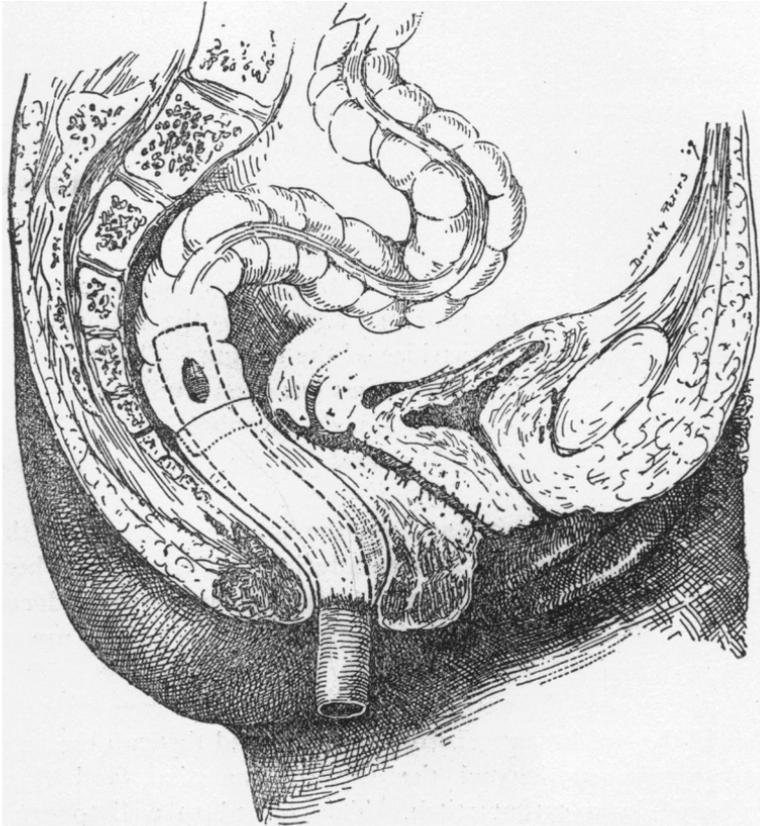
1. The patient is placed in a high Trendelenberg position

and a long median incision made between umbilicus and pubes.

2. The intestines are carefully packed off above, leaving only the lower sigmoid exposed in the pelvis.

3. Liberation of the affected portion of the bowel by lateral incisions through the peritoneum, especially through

FIG. 4.

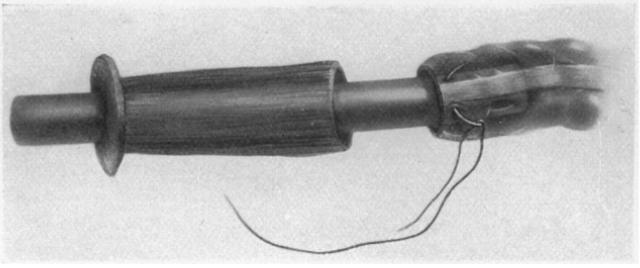


Profile drawing of median section of pelvis showing completed anastomosis.

the outer leaf of the sigmoid, and a semilunar incision along base of bladder connecting the two lateral.

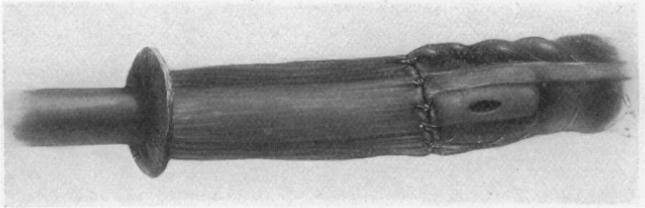
4. Careful dissection of all the fat and glands as high as the abdominal aorta, the hollow of the sacrum being swept clean.

FIG. 1.



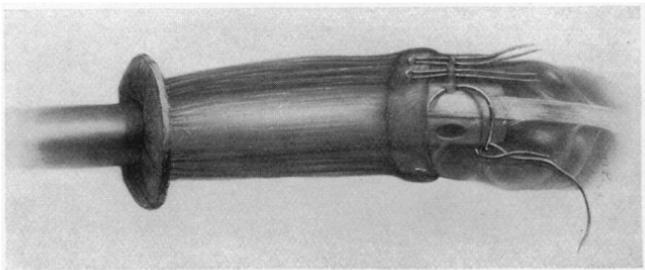
Showing tube introduced through rectum up into proximal sigmoid, and placing of catgut suture.

FIG. 2.



Showing tube used for bringing the two ends into apposition and first row of sutures placed.

FIG. 3.



Showing intussusception accomplished and outer row of sutures placed.

5. Ligation of the inferior mesenteric and middle sacral arteries at proper points.

6. Two pairs of forceps are clamped on the bowel at a suitable distance below the tumor and two on the proximal side; the necessary amount of sigmoid with the tumor excised, and the cut ends sterilized.

7. A three-quarter inch rubber tube is passed into the lower segment of bowel until the end protrudes through the anus: the upper end with lateral eye is inserted into the proximal end of the sigmoid to a distance of some three inches. It is here secured by a transverse catgut stitch one half inch above cut end of the intestine (Fig. 1).

8. Traction is made by an assistant upon the end of tube projecting from the rectum, until the cut ends of the bowel meet, and the anastomosis is made by interrupted through-and-through chromic catgut sutures with careful coaptation of the mucous membranes (Fig. 2).

9. Traction is again made upon the tube sufficient to accomplish a half-inch intussusception, this being aided by a few forceps on the distal fragment to steady it, and a second row of seromuscular sutures is inserted. Sometimes the parts are so deeply situated that the second row cannot be well placed, but the ultimate result has been good nevertheless (Fig. 3).

10. The defect in the peritoneum behind is remedied by sliding the peritoneum and suturing, and finally the omentum is drawn down over the anastomosis, and if necessary secured by a catgut suture.

11. The abdominal wound is closed in the usual way, drainage being provided for, as a rule, by two wicks carried down on each side of the anastomosis into the hollow of the sacrum, and brought out the lower part of the abdominal incision. The rubber rectal tube remains in position about six days, until the catgut suture is absorbed. The abdominal drains are loosened on the fourth to the sixth day, but usually not removed for a week because a temporary fistula sometimes occurs.