

A SUSPENSION OPERATION FOR PROLAPSE OF THE RECTUM*

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THE MULTIPLICITY OF OPERATIONS which have been described for the treatment of complete prolapse of the rectum is evidence that an operation has not yet been designed which can be considered entirely satisfactory. The principles involved in the various operations described are, (1) excision of the protruding bowel, (2) operations to reduce the size of the anus and lower rectum, (3) plastic operations to restore or strengthen the pelvic floor, (4) abdominal suspension, fixation, or both, of the prolapsed bowel, and (5) obliteration of the deep cul-de-sac.

The fact that the etiology of complete rectal prolapse is not entirely clear may have influenced the trial of many operative procedures without sound fundamental reasons. Complete rectal prolapse is probably primarily the result of an abnormally loosely attached rectum, a developmental defect, as suggested by Pemberton and Stalker.¹ These authors compare prolapse of the rectum to prolapse of the sigmoid following sigmoidostomy, when the sigmoid has a long mesentery. In addition to the loosely attached rectum, a deep cul-de-sac is present, which, due to intra-abdominal pressure, acts as a potential hernia between the rectum and vagina in the female, or rectum and bladder in the male (Moschowitz).² Graham³ interprets the prolapse as a sliding hernia of the anterior rectal wall through the anal canal. The natural defect in the pelvic fascia which permits the passage of the rectum through the diaphragm is enlarged by the pressure against the anterior wall of the contents of the cul-de-sac of Douglas. With enlargement of the normal outlet of the rectum and defective and lengthened supporting structures of the rectum, prolapse may be expected to occur.

If the cause of rectal prolapse is due to an abnormally attached recto-sigmoid with a long mesentery, and a deep cul-de-sac predisposing to hernia, an operation designed to correct these two anomalies should produce a cure.

TECHNIC OF OPERATION (Figs. 1, 2, 3, 4)

Two strips of fascia 1 to 2 cm. wide and 10 to 12 cm. long are excised from the fascia lata.

A left paramedian incision is made from the pubes to a point about 2 cm. above the umbilicus. The patient is placed in the Trendelenberg position and the abdominal contents are packed away from the pelvis with warm moist pads. A tape is passed through the mesentery beneath the lower sigmoid for traction. Gentle traction will hold the prolapsed recto-sigmoid in normal position.

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The fascia just above the promontory of the sacrum is exposed through an inverted T-shaped incision in the peritoneum. A strip of fascia is sutured to each side of the rectum with a double row of interrupted sutures of fine silk. The strip of fascia on the left is passed through a puncture wound made in the mesentery of the sigmoid. While the rectum is held suspended, the upper ends of the fascial strips are sutured to the dense fascia above the promontory of the sacrum. Interrupted silk sutures are used to attach both margins of the fascial strips to the fascia, a distance of at least 2 cm.

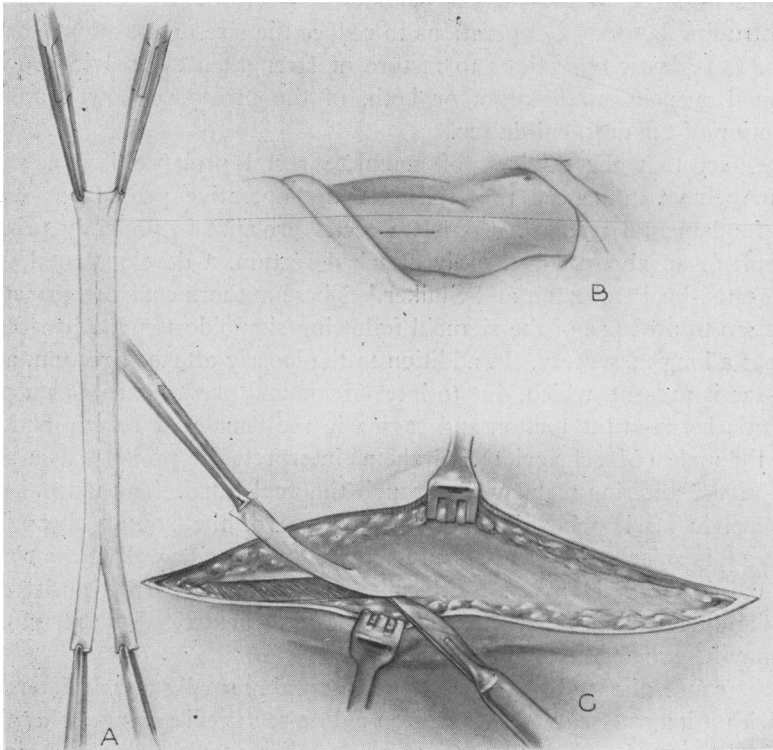


FIG. 1.—A, B, C. Technic of removal of fascial strips from fascia lata.

The cul-de-sac is completely obliterated by two or more rows of interrupted silk sutures placed across the pelvis. The peritoneum is sutured to the anterior wall of the rectum as each row of sutures is placed.

The pelvic operation is completed by suturing a fold of peritoneum to the rectum on each side to cover the fascial strips.

The abdominal and thigh wounds are closed with silk.

SUMMARY OF CASE REPORTS

Case 1.—F. H., a male, aged 36, was admitted to the University of Kansas Hospitals February 18, 1941. He dates his illness following a fall from a horse about five

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years before admission. His rectum began to protrude with each bowel movement. Examination showed a complete rectal prolapse about 10 cm. in length. He was operated upon February 22, 1941. He made a good recovery and left the hospital on the 15th postoperative day. He last reported January 27, 1947. He has had no recurrence of the prolapse but has recently been constipated and complains of stomach trouble.

Case 2.—J. A., a male, aged 68, entered the hospital February 22, 1944. The first prolapse of the rectum occurred four weeks before admission. From the onset, the bowel

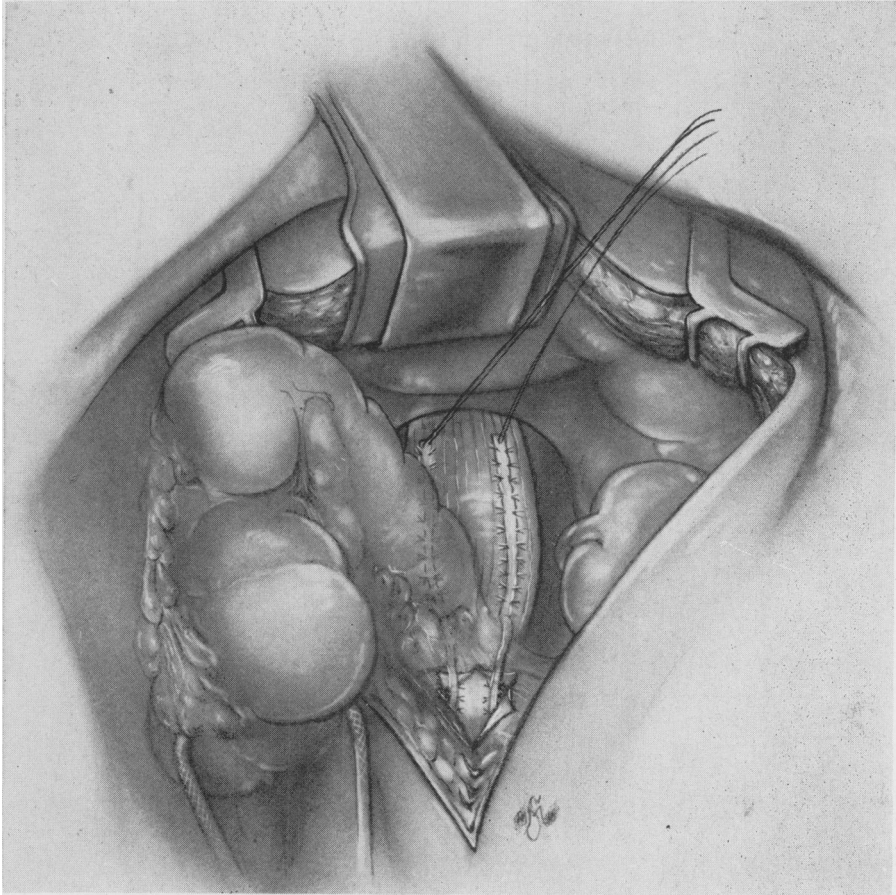


FIG. 2.—Fascial strips sutured to rectal wall and to fascia above the promontory of the sacrum. On the left the fascial strip is passed through the mesentery of the sigmoid.

prolapsed when his bowels moved and when standing. There had been some incontinence. This patient had a fracture of his spine one year before admission which resulted in spastic paraplegia. When straining the rectum protruded 5 to 10 cm. Since operation March 2, 1944, he has had no further evidence of prolapse. Because of his disability due to paraplegia he now spends much of his time in bed in a county institution. His condition was reported good on December 3, 1946.

Case 3.—J. J., a male, aged 33, entered the hospital November 12, 1945, complaining of rectal trouble. He had had a prolapse of the rectum at times since early childhood.

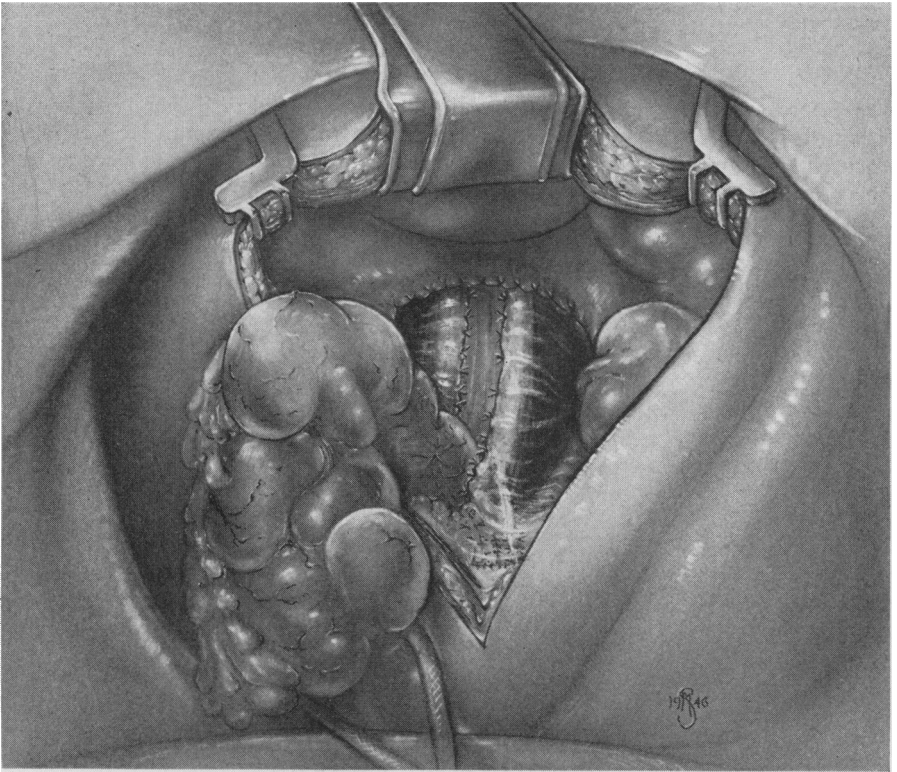


FIG. 3.—A fold of peritoneum has been sutured to the rectal wall on each side to cover the fascial strips. The cul-de-sac has been obliterated by rows of sutures placed transversely across the pelvis.

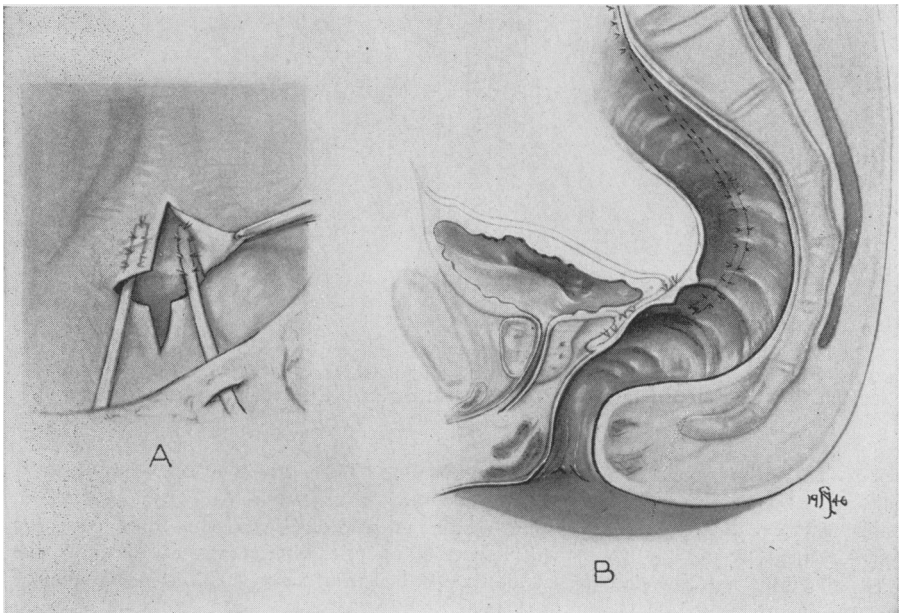


FIG. 4.—A. Detail of attachment of fascial strips to fascia above the promontory of the sacrum.
 B. Lateral view of pelvis showing closure of cul-de-sac and location of fascial strip on wall of rectum.

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About two years ago he had some type of rectal operation without benefit. The prolapse was greater after the operation and was associated with a dull pain in the rectal region. Examination showed a complete prolapse of the rectum which could be reduced manually. He was operated upon November 14, 1945. He reported on December 6, 1946, that he has no rectal trouble but does have some discomfort in the lumbar region.

Case 4.—Mrs. E. B., aged 66, was admitted to the Hospital on January 5, 1947. Prolapse of the rectum appeared about 15 months prior to admission. A rectal operation was done in February, 1946, which gave temporary relief. Asthma, which she has had several years, grew worse and she thinks persistent coughing may have influenced the return of the prolapse. For five or six months the prolapse grew worse until the rectum protruded constantly. She was a small emaciated woman weighing 84 pounds. The rectum protruded 10 to 12 cm. There was marked relaxation of the sphincters with almost complete incontinence. Following the operation on January 9, 1946, she made a good recovery and left the Hospital on the 12th postoperative day. On discharge she still had anal incontinence and some diarrhea. On March 15, 1947, her physician reported that there has been no recurrence of the prolapse and the sphincter tone has much improved. She has gained weight and is doing her housework.

TABLE I

Patient	Sex	Age	Date of Operation	Last Report	Result
F. H.	M	36	Feb. 22, 41	Jan. 27, 47	No recurrence of prolapse. Some constipation
J. A.	M	68	Mar. 2, 44	Dec. 3, 46	No recurrence of prolapse. Condition good
J. J.	M	33	Nov. 14, 45	Dec. 6, 46	No recurrence of prolapse. Some discomfort in back
E. B.	F	66	Jan. 7, 47	Mar. 15, 47	No recurrence of prolapse. Sphincter tone improving Doing own housework

RESULTS

The results in the four cases here recorded have been satisfactory to date (Table I). There has been no evidence of recurrence of the prolapse and the function of the rectum has been normal. The possibility of constriction or angulation of the lower sigmoid at the sacral promontory was considered but this has not happened. A barium enema has shown normal caliber of the rectosigmoid in two cases.

CONCLUSIONS

A suspension operation for complete prolapse of the rectum is described.

The steps in the operation suspend the rectosigmoid from the fascia above the promontory of the sacrum with fascial strips and obliterate the deep cul-de-sac of Douglas. It is believed that suspension of the loosely attached rectosigmoid directly prevents prolapse through the anus and obliteration of the deep cul-de-sac eliminates a potential hernia which is a contributing factor in rectal prolapse.

REFERENCES

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