The dilemma of preservation of the rectum: ileorectal anastomosis after total abdominal colectomy.

Indru Khubchandani MD
Lehigh Valley Health Network, Indru.Khubchandani@lvhn.org

Published In/Presented At

Khubchandani I. T. (1977). The dilemma of preservation of the rectum: ileorectal anastomosis after total abdominal colectomy. *Diseases of the colon and rectum*, *20*(8), 649–651. https://doi.org/10.1007/BF02586681

Symposium

The Dilemma of Preservation of the Rectum:

Ileorectal Anastomosis after Total Abdominal Colectomy

INDRU T. KHUBCHANDANI, M.D.
Allentown, Pennsylvania

DR. REMINGTON

Thank you very much, Dr. Schrock. I think the audience sees what I mean by all these figures, and they will have to study the published paper, especially after we hear the next speaker. I might mention, while you are taking notes, that an article in our journal, *Diseases of the Colon & Rectum,* in the March 1977 issue, by two of our members, Flint and Wise, and some others, takes the other side of the story; it is on page 118, volume 20. Now we will hear from Dr. Indru Khubchandani from Allentown, Pennsylvania.

DR. KHUBCHANDANI*

Thank you, Dr. Remington. Fellow members and guests, Dr. Schrock certainly painted a black picture of ileorectostomy. Our experience has been somewhat different. I would like to tell you how we do it and to what we attribute our success.

In considering surgical management of total involvement of the colon and rectum with inflammatory disease of the bowel, a surgeon is faced with a choice between total coloproctectomy with a permanent ileostomy or preservation of the rectum with ileorectal anastomosis. The former may be combined with the construction of a Kock reservoir ileostomy.

In a consecutive series of 86 patients operated upon for inflammatory disease of the bowel, the following 30 patients did not have ileorectal anastomoses and are excluded. Four patients died before the secondary anastomoses of the ileum to the rectum following total abdominal colectomy: one had carcinomatous "linitis plastica" involving the excised segment, one succumbed to pulmonary embolism postoperatively, and two died of small-bowel obstruction two and ten months after operation. Sixteen patients were excluded because the disease was only segmental: eight had right hemicolectomy for Crohn's disease of the terminal ileum, four had partial colectomy for right-sided Crohn's disease, three had partial resection of the left colon for segmental Crohn's disease, and one had a subtotal colectomy with ileosigmoidostomy. Five patients with severe rectal involvement had one-stage total coloproctectomy with ileostomy performed—three with ulcerative colitis having extensive damage to the anal musculature following multiple fistula operations, one with Crohn's disease having a rectovaginal fistula with extensive suppurative disease, and the fifth with Crohn's disease and having hemolytic

* Address reprint requests to Dr. Khubchandani: Suite 111—Liberty Square Medical Center, Liberty and Seventeenth Streets, Allentown, Pennsylvania 18104.

anemia and transfusion matching difficulties. Four patients of these 30 excluded are awaiting ileorectal anastomosis following colostomy with ileostomy and mucous fistula.

Fifty-six patients had ileorectal anastomosis performed following total abdominal colectomy. There were 20 men and 36 women. Ages of the patients ranged from 18 to 70 years, with an average of 39.6 years. The average duration of symptoms prior to operation was nine years. No evidence of increased complications was observed in 52 patients who had received prior corticosteroid therapy.

On the basis of endoscopic and radiologic findings, gross appearance at operation, and tissue histology, 30 patients (54 per cent) were classified as having Crohn's disease and 26 (46 per cent) as having chronic ulcerative colitis. In general, a more conservative regional excision of the bowel was performed in patients with Crohn's disease (16 patients). Twenty-four patients had primary anastomoses, and in 32 patients the procedure was done in two stages.

Surgical Technique

Following conventional mobilization of the colon and terminal ileum, the diseased bowel is removed while retaining 15 to 20 cm of distal segment of the rectum for primary anastomosis. An intraperitoneal single-layer anastomosis is constructed in end-to-end fashion using 5–0 monofilament stainless steel wire. Interrupted sutures transversing all layers of the bowel, 5 mm apart, incorporate the submucosa and barely exclude the mucosa. Square knots are tied on the inside in the posterior row and on the outside in the anterior row.

Preparation of the Rectum

In the group of 32 patients with two-stage procedures, intensive topical steroid therapy was required for the rectum, using a variety of different poorly absorbed steroids.

The average interval treatment period of the retained rectal segment with topical corticosteroids was 7.2 months, with a range of one to 28 months. An attempt was made to reverse the appearance of the rectal mucosa to as normal as possible before the anastomosis. However, residual erythema and slight granularity did not prove to be contraindications. In two patients with ulcerative colitis treated for 15 and 28 months, with failure to heal ulceration and bleeding, ileorectal anastomosis was carried out in the presence of purulent exudate. Subsequent improvement was noted in both cases, although periodic therapy with local corticosteroids was necessary in one.

Results

None of the 56 patients was lost to follow up. Follow-up periods ranged from a minimum of six months to a maximum of 20 years, with an average of 8.4 years. A questionnaire was returned by all patients, all had personal interviews, and all were examined proctoscopically.

No death was attributed to ileorectal anastomosis. None of the primary anastomoses leaked. In the staged anastomoses, leakage occurred in one of 32 cases, with ensuing persistent enterocutaneous fistula, for which reoperation was necessary. This particular anastomosis had been performed with braided 5–0 wire. The incidence of dehiscence was thus 1.8 per cent.

Status of the Rectum after Ileorectal Anastomosis

All but three patients have retained their rectums after the anastomosis (95 per cent). In no case has carcinoma in the retained segment been found. Patients are examined sigmoidoscopically every three months, or more frequently when recrudescence or in-

flammation in the rectum occurs. Biopsies are not done routinely for cellular dysplasia.

Two operative specimens with chronic ulcerative colitis showed occult unsuspected foci of carcinoma. The two patients remained clinically well with carcinoembryonic antigen titers in the normal range for five and six years, respectively.

The rectums of 28 patients with Crohn's disease have remained free of disease. Of the 25 patients with ulcerative colitis, ten have experienced recurrent exacerbations, which have been controlled by local corticosteroids and/or sulfazopyridine. One patient with ulcerative colitis had rectal bleeding, necessitating two transfusions, but has remained well for the past two years.

Three anastomoses have been taken down for reasons of intractable diarrhea, perineal fissures and fistulas. Two of these patients had Crohn's disease (failure rate 6.6 per cent), and one had chronic ulcerative colitis (failure rate 3.8 per cent). One additional patient with ulcerative colitis has giant benign perianal acanthosis, and its wide excision may warrant an ileostomy in the near future.

I am sentimental about my anus; as we all are, and I think one of the points that has not be stressed enough in the literature is that this is a disease of young people. If we can spare them their rectums and spare them their sexual function, we are doing them a great service. Thank you.

DR. REMINGTON

Thank you, Dr. Khubchandani.