

SURGICAL TREATMENT OF ULCERATIVE COLITIS

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ABSTRACT

This is a preliminary report of 28 patients with ulcerative colitis who were surgically treated with "J" pouch endorectal pull-through operation from 1978 to 1996. All patients are continent with a median stool frequency of 4 times per day, no night soilage, low postoperative complications and one mortality due to pulmonary embolism.

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INTRODUCTION

Ulcerative colitis, an uncommon disease in Iran in the past decades, has become frequent in recent years. Patients with chronic ulcerative colitis are treated by proctocolectomy. Surgery should be performed without hesitation when medical therapy fails to provide an acceptable quality of life or if neoplastic changes occur.

There has been controversies among both physicians and surgeons concerning the decision of when to operate, one reason being the fact that curative surgery for ulcerative colitis has historically resulted in an incontinent abdominal ileostomy, which patient and physician alike often consider worse than the disease itself.

Three alternative operations are available for the treatment of ulcerative colitis, namely continent ileostomy, abdominal colectomy with ileorectal anastomosis, and abdominal proctocolectomy with distal rectal mucosectomy and ileoanal anastomosis with or without construction of a reservoir.

In 1977, Martin and coworkers² reported on 17 patients with chronic ulcerative colitis who underwent mucosal proctectomy and total colectomy with ileoanal anastomosis. Satisfactory results were obtained in 15 patients and there was no deaths. In this regard, we decided to use this technique in our institution as a prospective study to evaluate the results of the procedure.

PATIENTS AND METHODS

28 patients with chronic ulcerative colitis were treated

with "J" pouch ileoanal anastomosis. There were 13 males and 15 females with ages ranging from 19 years to 60 years with a mean of 35 years.

Diagnosis of ulcerative colitis was made on barium enema, sigmoidoscopy and colonoscopy, and biopsy results documented the presence of ulcerative colitis in all the patients. All patients had been on medical therapy for 1 to 9 years. Indication for surgery was intractability to medical therapy. Bowel preparation started three days prior to surgery with clear liquids and cleansing enemas, and neomycin + metronidazole were administered the day before surgery.

The operation was performed in two stages. The abdominal colectomy, proximal proctocolectomy, distal endorectal mucosal resection preserving the anal transition zone, ileal "J" pouch-anal anastomosis and diverting loop ileostomy comprised the first stage of the procedure. The ileostomy closure took place 4-6 weeks later.

The dissection was carried down to the level of the coccyx posteriorly, to the midvaginal or the midprostate region anteriorly, and leaving the distal 6-8 cm of the rectum, the rectum is divided. The endorectal mucosectomy is performed transanally preserving the anal transition zone, using submucosal infiltration of adrenaline in saline for hemostasis and for facilitation of the dissection.

The "J" pouch which was constructed before transection of the rectum and measuring 12-15 cm is sutured to the anal mucosa with absorbable sutures. The muscular layer of the distal rectum is sutured to the pouch with 4 stitches of non-absorbable sutures.

A loop ileostomy was constructed in the right lower

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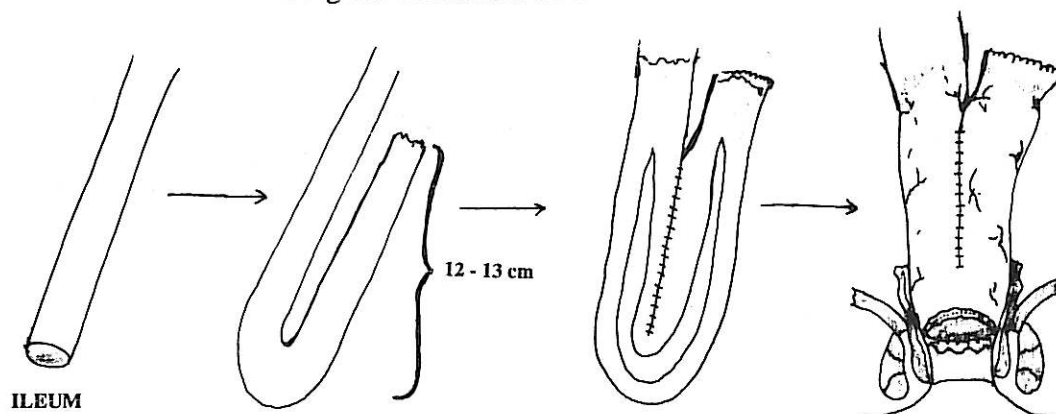


Fig. 1. Diagram of completed "J" pouch ileoanal anastomosis.

quadrant area, the stoma was matured, and no pelvic drainage was used. The ileostomy was closed 4-6 weeks later. All patients had radiographic studies and capacity of the pouch was checked before ileostomy closure.

RESULTS

28 patients with ulcerative colitis were treated with endorectal pull-through from 1978 to 1996. There were 13 males and 15 females 19 to 60 years of age. The indication for surgery was intractability to medical therapy.

All patients were completely continent after ileostomy closure with 6 to 8 bowel movements per day during the first month, that decreased to 4 per day in the second month. Diphenoxylate was prescribed for 70% of the patients during the first 6 months. Two patients complained of night soilage which disappeared in a month. Two patients developed intestinal obstruction and required reoperation, one patient with adhesion band 3 months after the second stage operation, and in the other patient—a 24 year old man—no obvious cause was found, but the entire small bowel was distended. Ileostomy was performed and closed after 3 months, but he again developed signs and symptoms of obstruction, so with a diagnosis of non-functioning pouch, ileostomy was done. Two women became pregnant 1.5 and 2 years after operation and both had normal vaginal delivery.

One patient with advanced disease extending to the anal mucosa and perineal excoriation developed multiple perianal fistulae 6 months after surgery, so the "J" pouch was removed and an ileostomy was performed.

One patient, an obese lady, died 7 days after operation due to pulmonary embolism and a 60 year old man with severe malnutrition, died 3 months postoperatively in the hyperalimentation ward.

DISCUSSION

The indication for performing continent ileostomy is

conversion from a standard ileostomy in a patient who is psychologically incapable of dealing with the stoma and who has already undergone proctectomy. The most common complication of this operation is dysfunction of the nipple valve, which occurs in about 17 percent of all patients. Although the majority of patients are continent and have no problems of uncontrollable flow of fecal material through the abdominal wall, still the psychological impact of the presence of a stoma prevails and as many as 45 percent of patients with abdominal stomas suffer depression, isolation, and difficulties with social interaction.⁴

Abdominal colectomy and ileorectal anastomosis, the second type of operation, avoids the presence of a stoma

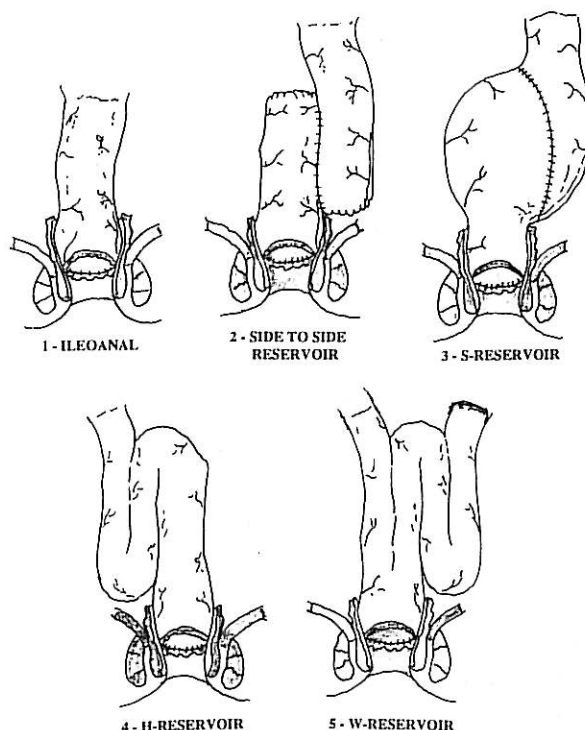


Fig. 2. Different ileal pouch configurations in patients undergoing endorectal ileoanal anastomosis.

and provides a physiologic method of emptying the bowel. Preservation of the rectum is desirable in terms of preventing impotence and problems of the perineal wound, but the rectal mucosa is almost always diseased when chronic ulcerative colitis requires operative therapy. In a report from St. Mark's Hospital,² 15 percent of the patients with ileorectal anastomosis were regarded as failures in treatment because of either intractable diarrhea or recurrence of active rectal colitis. In the Cleveland Clinic series,⁹ 21.4 percent of patients operated with ileorectal anastomosis had to undergo removal of the rectum because of persistent disease. The more important question is the incidence of cancer in this type of operation. A report by Baker and colleagues³ on 374 patients with ileorectal anastomosis followed for 23 years indicated an accumulated incidence of rectal cancer of 5.9 percent.

In treating patients with chronic ulcerative colitis, if continence could be maintained, then the quality of life and long-term satisfaction would be improved and acceptance of the operation would be facilitated. The surgical approach that provides such control should be based on two criteria; all diseased colon must be removed and a continent and physiologic pathway for defecation must be retained. This will decrease the social and psychological impact of the operation. The relatively new operation, the ileal pouch-anal anastomosis, fulfills these criteria. Best results are obtained in patients with disease limited to the colon and rectum, and it seems that younger patients have superior results when compared with older patients.²

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