



Short Communication

Characteristics and Outcome of Surgery in Patients with Inflammatory Bowel Disease

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Abstract

Background: Besides medical therapy, surgical interventions play an important role in the treatment of inflammatory bowel disease (IBD), but they also involve complications and advantages. This study was undertaken to determine the characteristics and outcome of surgery in patients with IBD.

Methods: All the files of the patients admitted in Nemazee and Faghihi hospitals with the final diagnosis of IBD during the past 10 years were reviewed. The history of surgery, the indication and the outcome were recorded.

Results: Among 246 IBD patients, 226 (91%) were ulcerative colitis (UC) and 20 (8.1%) were Crohn's disease (CD). Among UC patients who underwent surgery due to active disease, 23.8 % were unresponsive to medical therapy, 5.5% experienced severe bleeding and 2% were at the risk of cancer. Types of surgery were proctocolectomy and ileostomy (2%), colectomy and ileorectal anastomosis (37%) and total proctocolectomy and ileoanal anastomosis with pouch (62%). Complications were obstruction (11%), anal stenosis (31%), pouchitis (21%) and developed pouch dysfunction (10%). In cases of CD, 35% underwent surgery, 2 patients due to obstruction, 2 due to perianal fistule, 1 due to enterocutaneous fistule and fissure, 2 underwent hemicolectomy and 1 underwent resection of small bowel and ileo-ileostomy.

Conclusion: Strict follow up is recommended for the patients who are at risk of developing cancer to be managed appropriately.

Keywords: Inflammatory bowel disease; Ulcerative colitis; Crohn's disease

Introduction

Inflammatory bowel disease (IBD) refers mainly to two idiopathic diseases of the gastrointestinal system that are characterized by acute and chronic inflamma-

tion of ulcerative colitis (UC) and Crohn's disease (CD). UC is characterized by inflammatory changes involving the colonic mucosa and submucosa in a continuous fashion, starting at the rectum and extending proximally.^{1,2} CD, on the other hand, can involve any segment of the gastrointestinal system, usually in a discontinuous fashion (skip lesions), and the inflammation is frequently transmural.^{3,4} The first line in treatment of inflammatory bowel diseases is medical therapy,⁵ but in some cases surgical interventions

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is necessary.⁶ In UC, if the patient deteriorates clinically or develops complications (hemorrhage, toxic megacolon), emergency surgery is performed. If the patient does not improve in 2 to 4 weeks after maximal medical therapy, a colectomy should be considered. Surgery is curative for UC.^{7, 8} In CD, surgery is not curative and its indications include obstructions or intractable symptoms. Disease almost always recurs after surgery.^{9,10}

Today in our country, thanks to diagnostic advances in the field of pathology, the number of patients diagnosed with IBD is increasing and accordingly, the number of patients who need surgical interventions is rising. This study tries to evaluate patients with IBD who underwent operations in hospitals affiliated to Shiraz University of Medical Sciences during the last 10 years. It aims at investigating the indications for surgery, methods of surgery and complications after surgery, and comparing these data with those in other studies.

Materials and Methods

In this retrospective study, all files of the patients admitted in Nemazee and Faghihi hospitals with a final diagnosis of IBD (UC or CD) in the previous ten years (1992-2002) were reviewed and the data on the following were recorded: age, and sex of patients, type of disease (UC or CD), if the patient underwent surgery or not, the indication for surgical intervention, type of surgery done for the patient, and any complications developed after surgery. Data were analyzed by SPSS software (version 11.5, Chicago, IL, USA).

Results

Among the 246 patients diagnosed with IBD, 226 (91.9%) had UC and 20 (8.1%) CD. Among 226 cases of UC, 54 patients (23%) underwent operation, while in 20 cases of CD, 7 patients (35 %) did so. Among UC cases, 118 (52.3%) were male and 108 (47.7%) were female while these figures in CD were 13(65%) and 7(35%). Among 54 UC patients who underwent operation, 50 cases (92.5%) were active disease form unresponsive to medical therapy, 3 (5.5%) due to severe bleeding and only one (2%) due to dysplastic changes and the associated risk of cancer.

Of 54 UC patients with history of surgery, 33

(62%) cases underwent total proctocolectomy and ileoanal pouch anastomosis (12 cases had J pouch, 9 had S pouch and in 8 cases the method was not stated), 20 (37%) cases underwent colectomy and ileorectal anastomosis and only one (2%) case underwent proctocolectomy and brook ileostomy. Among 33 patients who underwent total proctocolectomy and ileoanal pouch anastomosis, 2 (6.06%) patients developed obstruction, 7 (21.2%) developed pouchitis, 3 (9.09%) developed pouch dyslocation and 7 (1.2%) developed anal stenosis after surgery. Among 20 patients who underwent colectomy and ileoanal anastomosis, one (5%) patient developed obstruction and 2 (10%) developed anal stenosis. The only patient who underwent proctocolectomy and brook ileostomy, presented no complication. The indication for surgery in few cases were obstruction, perianal fistula, enterocutaneous fistula, fissure, hemicolecotomy, and resection of small bowel in 2, 2, 1, 1, 2 and 1 cases, respectively. Some patients underwent 2 operations.

Discussion

As seen, the main indication for surgery was active form of the disease which was unresponsive to medical therapy. The reason can be due to low compliance of our patients to medications or inaccurate medical therapy regimens prescribed by our clinicians. The other reason maybe low number of patients who underwent surgery due to the risk of cancer and can be due to poor follow-ups in our country or poor pathologic and endoscopic results.

By taking a look at the types of surgery, we understand that proctocolectomy with Brook ileostomy has no place in surgical treatment of UC in our area despite its advantages. This may be due to patients' refusal to undergo permanent ileostomy or due to the lack of interest for this operation by our surgeons. As seen, the most acceptable method and result for surgery was total proctocolectomy with ileoanal pouch anatomists, which maybe due to the better and more acceptable quality of life of the patients.

Fortunately, IBD is not yet a prevalent disease in our area, but even with this low prevalence, we should still consider it as a risk factor for cancers.

The reasons for operation in UC were unresponsiveness to medical therapy, so to have better results from medical treatments; newer medications should be administered which are today used for the treatment

of IBD. As in medical treatment of patients, the only used medications were ASA and sulfasalazine, after unresponsiveness to these two medications, the patient was a candidate for surgical intervention. Clinicians should orient their patients on proper follow ups and compliance with drugs.

Patients undergoing surgery due to dysplastic changes were very few and this can be due to poor gastroenterologic follow ups for colonoscopy. Since the risk of colon cancer is increased, the patients should be encouraged to undergo follow ups for colonoscopy.

Among the three operations which could be performed for UC, the least frequent operations was procolectomy and Brook ileostomy. As in this operation the colon and rectum are removed, the incidence of recurrence of disease and also risk of cancer is eliminated. On the other hand, this operation is done only in one sitting, after which no complications related to pouch dysfunction and pouchitis are experienced. As pouchitis is a common complication of operation with total proctocolectomy and ileoanal pouch anastomosis, it results in pouch dysfunction and necessitates another operation, so this operation is now the operation of choice in western countries.

Despite a low prevalence of IBD in Iran, this disease is a risk factor for colon cancer, and more studies should be conducted on this issue. Unfortunately, the number of studies in this field is very low in our country and we do not have many results and statistics of patients, operations, results of operations and quality of life after operation in IBD. The quality of life with ileostomy is a major problem and most patients and surgeon prefer to have proctocolectomy and ileoanal pouch anastomosis. Our results are similar to other studies, but small numbers of our patients due to the low incidence of IBD and poor diagnostic methods and follow-ups in our geographic area necessitates a further study on a larger sample size. Strict follow up is recommended for the patients who are at risk of developing cancer to be managed appropriately.

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