

Acta Medica Okayama

Volume 49, Issue 2

1995

Article 8

APRIL 1995

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Jose Antonio Perdomo*

Hiromi Iwagaki†

Akio Hizuta‡

Motowo Mizuno**

Hitoshi Nakagawa††

Noriaki Tanaka‡‡

Takao Tsuji§

Kunzo Orita¶

*Okayama University,

†Okayama University,

‡Okayama University,

**Okayama University,

††Okayama University,

‡‡Okayama University,

§Okayama University,

¶Okayama University,

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Jose Antonio Perdomo, Hiromi Iwagaki, Akio Hizuta, Motowo Mizuno, Hitoshi Nakagawa, Noriaki Tanaka, Takao Tsuji, and Kunzo Orita

Abstract

The medical records of 16 consecutive patients with Crohn's disease surgically treated in our department from 1978 to 1993 were retrospectively reviewed. The indication for surgery was obstructive symptoms due to Crohn's strictures that were unresponsive to conservative therapy. The types of operations performed were classified into five categories. Nine patients (56.3%) had small bowel resection only, 4 (25.0%) underwent an ileocolonic resection, 1 (6.3%) had a total colectomy, 1 (6.3%) had Mile's operation and 1 (6.3%) had subtotal gastrectomy with gastrojejunostomy and antral mucosectomy. Of these 16 patients, 13 (81.3%) had resection with a single anastomosis and strictureplasty was concomitantly performed in only 2 cases (12.5%). Crohn's disease recurred in 3 patients (18.8%), 1 of whom required a second operation.

KEYWORDS: Crohn's disease, surgical resection, strictureplasty, recurrence

*PMID: 7618489 [PubMed - indexed for MEDLINE]

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Brief Note

Surgical Treatment for Crohn's Disease

Jose Antonio PERDOMO, Hiromi IWAGAKI*, Akio HIZUTA, Motowo MIZUNO^a, Hitoshi NAKAGAWA, Noriaki TANAKA, Takao TSUJI^a and Kunzo ORITA

First Department of Surgery and ^aFirst Department of Internal Medicine, Okayama University Medical School, Okayama 700, Japan

The medical records of 16 consecutive patients with Crohn's disease surgically treated in our department from 1978 to 1993 were retrospectively reviewed. The indication for surgery was obstructive symptoms due to Crohn's strictures that were unresponsive to conservative therapy. The types of operations performed were classified into five categories. Nine patients (56.3%) had small bowel resection only, 4 (25.0%) underwent an ileocolonic resection, 1 (6.3%) had a total colectomy, 1 (6.3%) had Mile's operation and 1 (6.3%) had subtotal gastrectomy with gastrojejunostomy and antral mucosectomy. Of these 16 patients, 13 (81.3%) had resection with a single anastomosis and strictureplasty was concomitantly performed in only 2 cases (12.5%). Crohn's disease recurred in 3 patients (18.8%), 1 of whom required a second operation.

Key words: Crohn's disease, surgical resection, strictureplasty, recurrence

Crohn's disease is an inflammatory bowel disease which affects the entire gastrointestinal tract from the mouth to anus and is associated with a wide variety of extraintestinal manifestations. The management of Crohn's disease continues to evolve both medically and surgically. Regardless, more than half the patients managed conservatively will eventually require surgical intervention and usually require multiple operations during their lifetime. The rate of operations and surgical indications vary among institutions with differences in either the aggressiveness of the disease or of the local management policy. In addition, much of the literature regarding

operation rates originates from institutions specializing in the treatment of this condition. The more severe cases may be referred to these institutions while milder cases may be managed at local, smaller hospital. The aim of this study is to present our experience in the surgical treatment of Crohn's disease in 16 patients consecutively managed from 1978 to 1994 in our department.

Patients and Methods

Sixteen patients with no history of major surgery undergoing nonemergent intestinal resection for Crohn's disease at our department between 1978 and 1994 were studied retrospectively. The diagnosis of Crohn's disease was based on clinical history, barium contrast radiographic studies, endoscopic findings and the criteria of the Japanese Society of Gastroenterology (1). Their sex, age at surgery, duration of symptoms, indication for surgery, type of operation performed and location of disease were recorded. Follow-up information was obtained by direct patient contact and by review of the medical records. Symptomatic recurrences were also documented.

Results and Discussion

Sixteen patients with Crohn's disease who underwent surgical resection were studied retrospectively. Their mean age at onset of symptoms was 26.1 ± 12.2 years and their mean age at diagnosis was 27.0 ± 12.0 years. The mean age at surgery was 29.1 ± 11.5 years, therefore, the time elapsed between diagnosis and operation was 2.1 ± 2.5 years. Ten patients (62.5%) were men and six (37.5%) were women. The time elapsed between operation and the present study was 5.0 ± 4.2 years

* To whom correspondence should be addressed.

Table 1 Characteristics of patients with Crohn's disease

Number (1978~1994)	16
Sex (Male:Female)	10:6
Age at onset (years)	26.1 ± 12.2
Age at diagnosis (years)	27.0 ± 12.0
Age at operation (years)	29.1 ± 11.5
Time elapsed between onset and diagnosis (years)	0.9 ± 0.8
Time elapsed between diagnosis and operation (years)	2.1 ± 2.5
Time elapsed between operation and present study (years)	5.0 ± 4.2

(Mean ± SD)

Table 2 Site of Crohn's disease and resection procedure

Site	Resection		
Gastroduodenal	1	Subtotal gastrectomy	1
Jejunal	2	Jejunal resection	2
Ileal	7	Ileal resection	7
Ileocolonic	4	Ileocolonic resection	4
Colonic	2	Total colectomy	1
		Miles' operation	1
Total	16		16

(Table 1).

At the time of surgery, the disease was localized to the small bowel in 9 patients (56.3%), to the large bowel in 2 patients (12.5%), to the gastroduodenum in 1 patient (6.3%), and involved both the small and large intestine in 4 patients (25.0%). The indications for surgery were as follows: 14 patients (87.5%) were operated on for symptoms of obstruction, 1 patient (6.3%) had a retroperitoneal abscess and 1 patient (6.3%) had an enterocutaneous fistula.

The types of operations performed were classified into five categories. Nine patients (56.3%) had small bowel resection only, 4 (25.0%) underwent an ileocolonic resection, 1 (6.3%) had a total colectomy, 1 (6.3%) had a Miles' operation and 1 (6.3%) had a subtotal gastrectomy with gastrojejunostomy and antral mucosectomy (Table 2). Thirteen patients (81.3%) had resection with a single anastomosis.

In our study, strictureplasty was concomitantly performed in only 2 cases (12.5%) of 16 patients. Strictureplasty continues to gain acceptance as a reliable, bowel-conserving option for the management of strictures attrib-

utable to Crohn's disease (2, 3). Spencer *et al.* support the contention that strictureplasty is safe and not associated with anastomotic leaks, fistulas or recurrent strictures (4). The clinical application of strictureplasty, particularly as a primary procedure, however, remains limited because most patients with Crohn's disease have active and segmental involvement that necessitates resection.

Symptomatic recurrent disease developed in 3 patients (18.8%) within the follow up period of 5.0 ± 4.2 years. The presences of recurrent diseases were confirmed by radiographic and endoscopic studies and were at sites other than the primary anastomotic sites. One out of 3 recurrent patients had a second surgical resection and the other two patients were managed conservatively. For those patients who require intestinal resection, the 10-year reoperative rates for recurrence were reported to range from 30 to 53% despite complete resection of gross disease at the initial procedure (5, 6). Discouraging results in patients with recurrent symptoms after primary radical resection coupled with mounting histologic evidence that Crohn's disease is a panintestinal process, have led surgeons to consider strictureplasty as an alternative therapeutic procedure.

A decade ago, Lee and Papaioannou (2) and Alexander-Williams and Haynes (3) advocated the use of strictureplasty for the treatment of fibrotic strictures caused by Crohn's disease. Their encouraging results challenged the historic concept of resection for multiple skip areas in patients with Crohn's disease. The optimal clinical setting, number of strictureplasties, length of strictureplasty and ideal technique have yet to be determined. Further study is needed to determine efficacy of strictureplasty in minimally diseased bowel *versus* thoroughly fibrotic tissue and the role of concomitant resection of gross disease and its effect on recurrence.

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Received July 12, 1994; accepted January 23, 1995.