

Proctocolectomy and ileostomy for ulcerative colitis: the longer term story

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Summary

Elective surgery for ulcerative colitis usually involves the removal of the entire large bowel with either a conventional ileostomy or the formation of an ileoanal pouch anastomosis. Seventy patients undergoing a one stage elective total proctocolectomy and ileostomy between 1976 (the first year an ileoanal pouch was carried out in this hospital) and 1986 have been studied. We have confirmed that proctocolectomy and ileostomy for ulcerative colitis is not the trouble free operation many presume it to be when considering the alternative of an ileoanal pouch.

Introduction

In the 1960s and the first half of the 1970s the only available surgery for ulcerative colitis was colectomy and ileorectal anastomosis and total proctocolectomy. As many patients were unsuitable for ileorectal anastomosis the late complication rate for total proctocolectomy had to be accepted. These complications became well known as a result of studies of large series from both special centres^{1,2} and groups of hospitals^{3,4}. It was found that about a third of all patients needed readmission for some complication related to the previous surgery.

About a decade ago Parks and Nicholls⁵, and Utsunomiya⁶ separately described a pouch operation which, while removing all the large bowel, avoids the need for a permanent ileostomy. This operation gives reasonable functional results but at the price of a relatively high in-hospital complication rate. In addition, the longest follow-up for any pouch patient is only 12 years. These last two concerns of in-hospital complications and longer term results have led some gastroenterologists, general practitioners and surgeons to be somewhat sceptical as to the role of pouch surgery. This means that in 1989 when discussing the surgical options with a patient requiring elective surgery a one-stage proctocolectomy is usually advocated as the most straightforward, tried and trusted operation to eliminate the disease process completely and to give the quickest return to normal health. Although this estimate may be correct we wished to know the present complication rate in order to help us when giving advice to our patients.

We have therefore looked at the longer term complication rate after one-stage elective proctocolectomy and ileostomy for ulcerative colitis where the operation was performed by one of the consultant members of staff at this hospital during an 11 year period that parallels the development of ileoanal pouch surgery. These patients represent a group of patients who potentially might have undergone pouch surgery but who, for a variety of reasons (eg did not want it, too old, anal sphincter not suitable) were not

Table 1. In-hospital major complications

Complication	Stay (in days)
Ischaemic ileostomy. Laparotomy.	35
Perineal wound and acute retention	59
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Pelvic abscess and small bowel obstruction	24
Perineal wound and ? salpingitis	31
Uraemia and acute gastric dilatation	18
Perineal wound and infarction of ileostomy	22
Massive bleed from duodenal ulcer	22
Perineal wound and retroperitoneal abscess	36
Perineal wound	65
Recurrent minor pulmonary embolism	36
Faecal fistula, laparotomy×2 and drainage of abscess	254

offered it. We hope they may serve as a comparison of future studies of the longer term morbidity after the alternative and more complex operations to construct a pouch.

Patients, methods and results

Between 1976 and 1986, 42 men and 28 women (age range 25-75 years; mean 49; 38 aged 50 or less) underwent elective one-stage total proctocolectomy for ulcerative colitis. The reasons for surgery were: chronic symptoms 43; recurrent acute attacks 5; carcinoma 12; and dysplasia 10. Only 43 (61%) left hospital without suffering any complication. Of the 27 patients with complications, these were minor in 15 and in 11 were related to the perineal wound and major in 12 patients (Table 1). Median postoperative stay was 16 days (range 11-254).

During subsequent follow-up 25 patients (36%) have been readmitted on 42 occasions and 15 (21%) have been reoperated on 24 times. The cumulative probability of readmission at six years by life table analysis was 45% (95% CL=31-59%: 37 patients followed for > six years) (Figure 1). The reasons for readmission and reoperation are given in Table 2. The

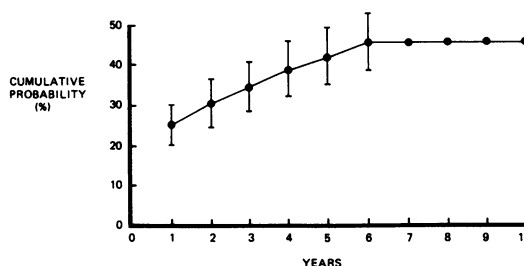


Figure 1. The cumulative probability of readmission

Table 2. The longer term story

Readmissions	Patients	Admissions
Ileostomy dysfunction	13	20
Small bowel obstruction	10	11
Perineal wound	6	6
Other	3	5

Reoperations	Operations	Patients
Ileostomy	15	11
Small bowel obstruction	2	2
Perineal wound	5	5
Other	2	1

The other reasons for readmission and reoperation were: abdominal pain; vomiting ? cause; and, in the same patient, exploration of abdominal wound, laparotomy for pain, and admission because of a liquid ileostomy effluent ? cause.

reasons for 15 further operations on the ileostomy in 11 patients were: retraction six; prolapse one (five operations); repair of paraileostomy hernia three; and fistula one (there being no evidence of Crohn's disease).

Discussion

The options facing a patient who needs elective surgery for ulcerative colitis are: colectomy and ileorectal anastomosis, proctocolectomy and ileostomy, and proctocolectomy with a pouch ileoanal anastomosis. Few patients are suitable for an ileorectal anastomosis as the rectum is usually severely affected by the disease and is often contracted and poorly distensible.

Most patients have had long periods of chronic symptoms by the time they come to surgery and it is perhaps not surprising that quite a few would rather choose an operation that will get them well and out of hospital quickly with as small a chance as possible of future complications, even if the price to be paid is that of a permanent ileostomy. Such patients rely heavily on the advice given to them not only by their surgeon but frequently also by their general practitioner. In addition, the referral of such patients depends to a large extent on physicians with a special interest in gastroenterology, many of whom can control the surgical advice given to their patient by the appropriate referral either to a 'pouch' surgeon or to one not experienced in the technique. It is possible that the surgical choices are often explained

Table 3. Recent in-hospital complication rates for pouch surgery

Authors	Experience	Complications	(%)
Nicholls and Pezim (1985)	104	40	38
Cohen <i>et al.</i> (1985)	70	38	54
Nasmyth <i>et al.</i> (1986)	39	20	51
Becker and Raymond (1986)	100	13	13
Harms <i>et al.</i> (1987)	15	6	40
Pemberton <i>et al.</i> (1987)●	390	113	29
Pescatori <i>et al.</i> (1988)	84	30	36
Keighley (1988)	70	20	29
Total	872	280	32

●Includes complication rate after closure of loop ileostomy

and dictated by those not entirely familiar with the complication rates of the conventional operation. This may be no bad thing, for it serves as a counter to the enthusiasm of some surgeons, but nonetheless in the heat of the moment it is very hard for a patient to fully appreciate the physical, personal and sexual limitations imposed by life with a permanent stoma⁷.

This study shows that the conventional operation still has a high postoperative complication rate. For comparison, these rates for pouch surgery are shown in Table 3⁸⁻¹⁵: numerically they are very similar to those for the conventional operation presented here (total 39%, major 17%), although it is our impression that, on the whole, complications after pouch surgery are more serious.

We know that, with certain provisos, life expectancy after total proctocolectomy and ileostomy is nearly normal² although readmission and reoperation rates remain at a fairly high level. Few complications are life-threatening but, for the time being, they must be taken into account when giving informed advice on the choice between a permanent ileostomy or a pouch, the longer term results of which are awaited with interest.

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