

INTRODUCTION

This chapter will deal with the surgical management of Ulcerative Colitis and Crohn's disease

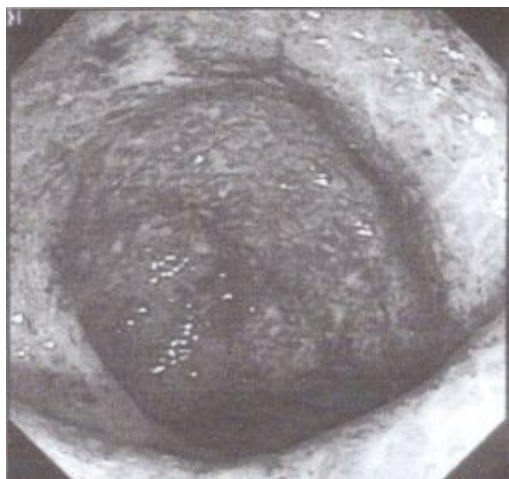


Fig 1 Ulcerative colitis (flexible sigmoidoscopy)

AETIOLOGY

This is essentially unknown. Important factors are:

- Genetic predisposition
- Infection with unknown organisms
- Hypersensitivity to antigens in the luminal contents with the colon as an innocent bystander of an inflammatory reaction.

PATHOLOGY

Classically ulcerative colitis affects the colon. The disease is continuous and usually involves the rectum. It extends for a variable distance proximally in the colon. Crohn's disease affects any part of the bowel from mouth to anus. It may be patchy with skip lesions. It most commonly involves the terminal ileum and proximal colon. Ulcerative colitis involves the mucosa whereas Crohn's disease has deep fissuring ulcers that penetrate through the bowel wall to involve adjacent organs. The key feature on microscopy in

ulcerative colitis is the presence of crypt abscesses. while in Crohn's disease it is the presence of non-caseating granulomas. Smoking is important promoter in Crohn's disease but is protective in ulcerative colitis.

CLINICAL PRESENTATION

Patients with ulcerative colitis complain of diarrhoea with urgency with or without rectal bleeding associated with constitutional symptoms. Crohn's disease may produce symptoms similar to those of ulcerative colitis. In addition Crohn's disease may present with many other symptoms depending in the site of disease. It may mimic acute appendicitis. Small bowel obstruction or may present as perianal sepsis.

MANAGEMENT

The management of both conditions is primarily medical. Surgery has a role in diagnosis. particularly in Crohn's disease. The main role for surgery however, is for failed medical therapy. An acute severe attack of ulcerative colitis is defined as more than six stools a day associated with 2 or more of the following:

- Pyrexia
- Anaemia
- Tachycardia



Fig 2: Supine abdominal x-ray of patient with extensive colitis demonstrating a dilated transverse colon. Note the oedematous and ulcerated mucosa of the transverse colon.

- Ulcerative colitis
- Crohn's disease
- Amoebiasis
- Pseudomembranous colitis

The diagnosis is made on radiological evidence of dilated colon in a sick patient where the colon is the cause of the illness. The danger is that colonic perforation is imminent. If a toxic megacolon occurs while on medical therapy emergency colectomy is indicated. In a patient who is not on therapy there may be a case for a short trial of medical therapy (hours) with progression to colectomy if the condition does not rapidly improve.

Colonic perforation is an indication for emergency surgery. The clinical signs of an acute abdomen may be suppressed in a patient who has an acute severe attack of inflammatory bowel disease because of the immunosuppression produced by medical management

Massive haemorrhage is an unusual complication of inflammatory bowel disease.

It may occur with limited disease and the management is usually medical management of the underlying disease. Occasionally this may be an indication for urgent surgery. In the emergency situation the usual operation performed is a total colectomy with an end ileostomy. The rectum is left in the patient with the proximal end closed off.

Urgent surgery

Failed medical therapy. These are patients who have been admitted with an acute severe attack of ulcerative colitis and partially responded. Their stool frequency may have decreased somewhat and they may or may not still have blood in their stools. The attack has however not completely settled. The problem is deciding how long to wait before deciding that medical

The initial management is

- Resuscitation
- Confirm the diagnosis usually with gentle rigid or flexible sigmoidoscopy. Colonoscopy is not indicated because of the risk of perforation.
- Exclude infective diarrhoea even in a patient known to suffer from ulcerative colitis, with stool cultures
- Daily erect chest and abdominal xrays.
- At least twice daily assessment by both a medical and surgical gastroenterologist.
- High dose intravenous steroids
- Within 3 to 5 days. If the patient has not settled, consider surgery or rescue therapy with cyclosporine or anti TNF agents.

Surgical management of ulcerative colitis

Emergency surgery

Toxic megacolon: This condition can be caused by diseases such as:

therapy has failed. A reasonable guideline is that if at the end of 3 to 5 days of high dose intravenous steroids the patient has not completely recovered therapy should be changed. Either more aggressive medical management with anti TNF agents or cyclosporine or surgery should be considered.

The operation of choice for these patients is a colectomy and ileostomy. The rectum is not removed at this stage.

Elective surgery

Chronic ill health: This is difficult to define. Patients are chronically unwell for many years. They get used to it. They may be underweight and chronically anaemic. Some may have significant side effects of chronic steroid usage. Others may have multiple hospital admissions for acute flares on a background of incomplete recovery.

Risk of malignancy. Ulcerative colitis is associated with an increased risk of colonic malignancy. It is generally accepted that the risk of developing colorectal cancer rises by about 1% per year from about 8 to 10 years after the first attack where there is extensive disease. The risk is low for limited disease and is higher with total colonic disease. The highest risk is patients who have ulcerative colitis complicated by sclerosing cholangitis.

Management of risk

- Proctocolectomy reduces the risk to a very low level. An individual at high risk who in addition has chronic ill may well consider colectomy.
- Endoscopic surveillance. Repeated colonoscopies at annual intervals from about 10 years from the start of the disease may detect early changes that are associated with malignancy. If these appear then proctocolectomy should be performed.

- Ignore the risk. This is an option in patients" whose first attack occurs late in life.

OPERATIONS FOR ULCERATIVE COLITIS

- A proctocolectomy with removal of the anus and a permanent end ileostomy is the lowest risk operation that will remove all the mucosa affected by ulcerative colitis it is done as an elective operation. The problem with this operation is that it leaves the patient with a permanent ileostomy.
- A restorative proctocolectomy has become the standard operation for ulcerative colitis where a permanent ileostomy is to be avoided. With this operation. The colon and rectum are removed. A pouch is created at the end of the small bowel and joined to the anus. It is usually done as an elective operation with a temporary ileostomy.
- A colectomy and ileostomy with preservation of the rectum is the operation of choice for an ill patient. It removes most of the colon and therefore allows the patient to recover rapidly from the acute attack of ulcerative colitis. Once the patient has recovered either of the 2 above definitive operations can be performed.
- A colectomy with ileorectal anastomosis is occasionally used where a stoma is to be avoided. It has a place where there are technical issues with creating an ileal pouch with sufficient length to reach the anus. The problem with the operation is that the rectum is retained and ulcerative colitis recurs in this area.

Surgical management of Crohn's disease

The surgical management of Crohn's disease is essentially the management of complications of the disease. The specific management depends on the type of complication and the site:

Anal disease: Anal disease is common affecting up to 50% of patients with Crohn's disease. Anal pain may be as a result of the Crohn's disease or the presence of abscesses. Examination under anaesthetic is frequently required to distinguish abscesses from acute inflammation. Abscesses require drainage. Perianal fistulas are common. They should be managed conservatively with setons rather than fistulotomy as healing is unusual.

Small bowel and colonic disease: This may be found at operation for suspected acute appendicitis. Management depends on the extent of disease and the experience of the surgeon. If the surgeon is experienced and the segment of the disease short (less than 10cm) it is not unreasonable to resect it. This allows a histological diagnosis and prevents the side effects of medical management. If the surgeon is not experienced. A biopsy of a lymph node is all that should be done.

The majority of surgical management for ileocolic disease is for complications. These include fibrotic strictures which will clearly not respond to medical management. Enterocutaneous, enterovaginal and enterovesical fistulas usually come to surgery.



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