

## RECTAL PROLAPSE AND ASSOCIATED CONDITIONS

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Complete rectal prolapse.



Incomplete rectal prolapse.

Prolapse of the rectum is a distressing condition which causes discomfort during bowel action. Occasionally it is surprisingly well tolerated for many years.

There are three main types of rectal prolapse:

*Complete prolapse*—The full thickness of the rectum prolapses through the anus—that is, two layers of rectum with an intervening peritoneal sac, which may contain small bowel.

*Incomplete prolapse*—The prolapse is limited to two layers of mucosa.

*Concealed prolapse*—There is an internal intussusception of the upper rectum into the lower rectum, which does not emerge through the anus.

### Aetiology

#### Causes of rectal prolapse

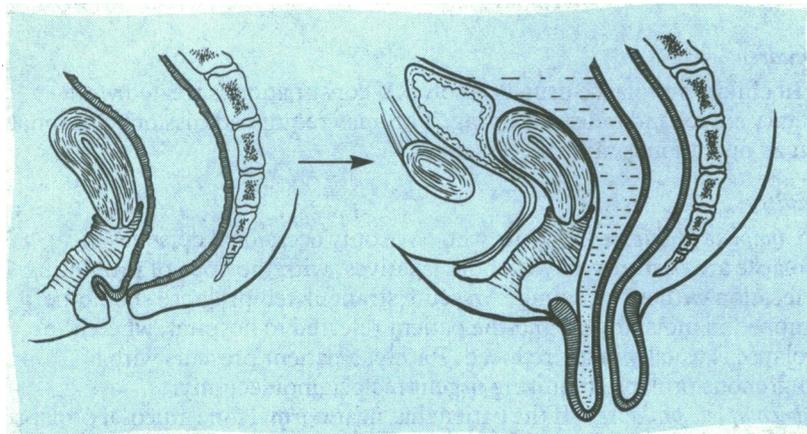
##### Incomplete prolapse

- Children — Excessive straining
- Constipation
- Cystic fibrosis
- Adults — Haemorrhoids
- After anal surgery
- Atony of anal sphincters

##### Complete prolapse

- Adult — Idiopathic intussusception of rectum
- Lack of fixation of rectum to sacrum
- Weak pelvic and anal musculature

The exact aetiology of rectal prolapse is uncertain. In children incomplete prolapse is related to excessive straining at stool, constipation, and cystic fibrosis. Mucosal prolapse may occur in adults with large haemorrhoids and weak anal sphincters.



Probable evolution of rectal prolapse. Internal prolapse of upper rectum into lower rectum (left) ultimately becomes a complete prolapse of the rectum through the anus (right).

Complete rectal prolapse probably starts as a concealed internal intussusception of the upper rectum, which ultimately prolapses through the anus. Patients have a floppy redundant sigmoid colon, a deep rectovaginal or rectovesical pouch, and poor fixity of the rectum to the pelvis with weak anal sphincters and levator ani muscles. They often have a descending perineum. It is unclear whether these factors are causal or secondary.

Rectal prolapse is six times more common in women than in men but is not associated with childbirth or parity. Nearly all elderly patients with rectal prolapse have a history of constipation and prolonged straining at stool, which stretch the pelvic floor and anal sphincter mechanism.

## Clinical features

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- Prolapse initially related to defecation
- Bleeding
- Mucus discharge
- Incontinence

### Signs

- Not usually prolapsed at rest when first seen
- Patulous anus
- Poor anal tone; large anal orifice

### Children

Prolapse is usually noticed by a parent after the infant has defecated, and it is usually easily reduced. Rectal prolapse, colonic intussusception, and prolapsing polyps can be readily differentiated on examination.

### Adults

Most adult patients present with a prolapse which reduces either spontaneously or with manual assistance after defecation. Only occasionally is the prolapse irreducible. Prolapse causes discomfort, and trauma to the prolapsed mucosa results in bleeding and discharge of mucus. Three quarters of these patients also have faecal incontinence. In some patients the prolapse extrudes on minimal straining—when standing up, coughing, or sneezing. Prolapse in younger patients is often associated with straining at stool, solitary rectal ulcer, perineal descent, and rectocele.

## Examination

### Conditions that patients may mistake for rectal prolapse

- Large haemorrhoids
- Prolapsing rectal tumour
- Anal warts
- Abnormal perineal descent
- Anal polyps



Prolapsing anal polyp.

The prolapse is not usually visible when the patient is first examined unless it is irreducible. A complete rectal prolapse is demonstrated by asking the patient to strain. It may take several minutes for the prolapse to emerge slowly through the anus. Sometimes the patient has to sit on a lavatory seat and strain. Complete rectal prolapse is recognised by its concentric mucosal rings, whereas mucosal prolapse has radial folds. If more than 5 cm of rectum have prolapsed it will almost invariably be a complete prolapse. If less than 5 cm of bowel emerges it may be difficult to distinguish between complete and incomplete prolapse.

The anus is usually lax and patulous, allowing three or four fingers to be introduced without causing discomfort. Proctitis secondary to the trauma associated with prolapse is a common finding on sigmoidoscopy. Some patients who complain of prolapse have large prolapsing haemorrhoids, prolapsing rectal tumours, or perianal warts, but these are all readily distinguished on anorectal examination.

## Treatment

### Operations for rectal prolapse

#### *Incomplete prolapse*

- Injection sclerotherapy
- Haemorrhoidectomy

#### *Complete prolapse*

##### Perineal operation:

- Thiersch suture
- Delorme operation
- Perineal rectopexy

##### Abdominal operation:

- Abdominal rectopexy
- Anterior resection rectopexy

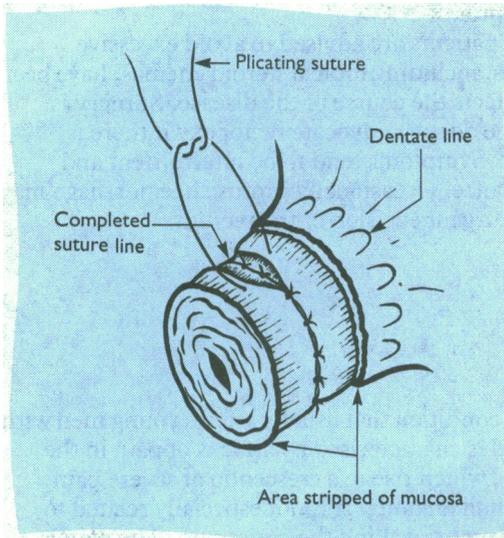
### Children

In children prolapse usually resolves if constipation is treated with dietary advice and toilet retraining. This may require admission to hospital, but an operation is rarely necessary.

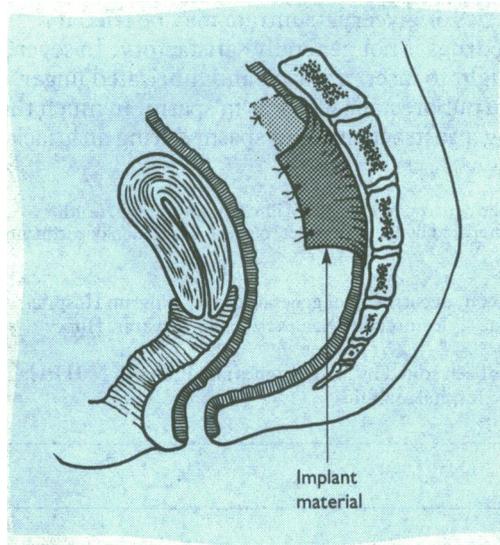
### Adults

**Complete prolapse**—Patients who have only occasional episodes of prolapse are best treated with bulk laxatives, with the hope of promoting defecation without straining. An acute strangulated prolapse should be wrapped in moist towels and the patient referred to hospital, where the prolapse is usually easily reduced. Rarely, a patient presents with a gangrenous prolapse requiring urgent rectosigmoidectomy.

**Incomplete prolapse**—If the patient has near normal tone mucosal prolapse is usually successfully treated by injection sclerotherapy or extended haemorrhoidectomy. The results are less satisfactory in patients with poor anal sphincters, who may require specific treatment for faecal incontinence.



Delorme procedure.



Rectopexy.

A large number of operations have been described and advocated with varying degrees of enthusiasm, suggesting that none is perfect.

*Perianal sutures*

The insertion of an encircling perianal (Thiersch) suture was once popular, especially in frail patients unfit for major surgery. This has become less popular owing to its poor results and associated complications.

*Delorme procedure*

In the Delorme procedure the rectal mucosa is excised and the underlying rectal muscle plicated with sutures. This has also been a popular procedure and is more successful than perianal suture, though the long term results are less than satisfactory.

*Abdominal rectopexy*

Abdominal rectopexy was once the most popular treatment for patients fit enough for laparotomy. The rectum is mobilised and attached to the sacrum by prosthetic material, usually polypropylene mesh (Ripstein) or Ivalon sponge (Wells). This almost invariably controls the prolapse, and incontinence is relieved in 60% of those patients with this symptom. The main drawback is constipation, which affects 60% of patients after the operation. This is related to impaired rectal motility after the pelvic dissection and the persisting redundant sigmoid loop, which causes a functional obstruction.

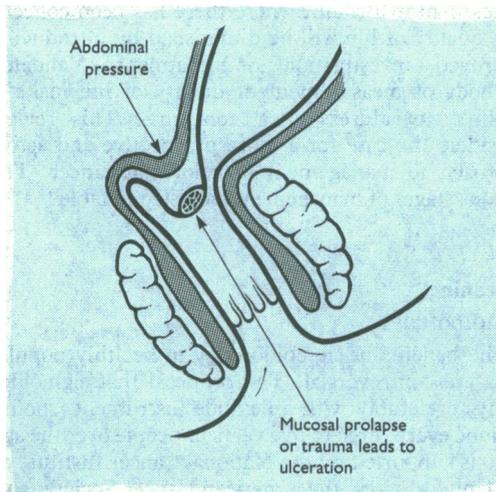
*Anterior resection rectopexy*

Resection of the redundant sigmoid loop and upper rectum gives superior results, especially in patients with defective colonic transit. The prolapse is controlled and postoperative constipation is largely avoided. Resection may be combined with rectopexy with prosthetic material, but the pelvic dissection usually promotes sufficient reaction to fix the rectum to the sacrum. The anastomosis increases the potential for complications, but access is rarely a problem as these patients have a large pelvic pouch, so the anastomosis is made with ease and leakage is uncommon.

*Perineal resection*

Perineal rectosigmoidectomy, combined with rectopexy and repair of the pelvic floor, with a coloanal anastomosis recently has yielded encouraging results. It is hoped that refined perineal operations will reduce the need for abdominal operations in elderly and frail patients.

**Solitary rectal ulcer**



Possible aetiology of solitary rectal ulcer.

Solitary rectal ulcer is a chronic recurrent ulcer on the anterior wall of the rectum associated with bleeding, discharge of mucus, and discomfort or pain. There may be up to three ulcers, 7-10 cm above the anal verge, which are shallow with white, grey, or yellow bases and surrounding hyperaemic mucosa.

It is equally common in men and women, with a peak incidence in people in their 30s. It is believed to be caused by repeated mucosal trauma due to prolapse into the anal canal during straining and defecation in patients who characteristically strain at stool. The anterior rectal mucosal prolapse can be shown by defecating proctography. In other cases there is no obvious cause. Trauma due to patients using their fingers or other objects to aid defecation has been proposed as a cause of solitary rectal ulcer, but the importance of this has probably been exaggerated. These patients may genuinely need to use their fingers to ease defecation obstructed by the subclinical prolapse.



White indurated base of a solitary rectal ulcer viewed through a proctoscope.

### Management

Other anorectal abnormalities are excluded by anorectal examination. Biopsy specimens of solitary rectal ulcers show characteristic fibromuscular obliteration of the lamina propria.

Constipation is treated and patients are advised to avoid excessive straining at stool. Many agents, including topical steroid enemas, have been used but none significantly affects the course of the disease. Surgery is usually unrewarding, but some doctors advocate rectopexy if there is evidence of abnormal descent. Symptoms tend to be intermittent and usually little more than a nuisance. Occasionally profuse haemorrhage may occur, which may necessitate urgent excision of the rectum.

## Proctalgia fugax

### Treatment of proctalgia fugax

- Explanation and reassurance
- Analgesics
- Antispasmodics
- Glyceryl trinitrate
- Puborectalis stretch

Proctalgia fugax is a benign condition that usually affects young men with anxiety. It is often familial and is characterised by attacks of pain in the rectum, perineum, or urethra, which rise to a crescendo of severe pain, lasting from a few minutes to half an hour. It is not especially related to defecation and often occurs at night, waking the patient up. The pain is spasmodic and responds to smooth muscle relaxants such as nitrates.

Treatment, after exclusion of other organic disease, is centred on explaining the symptoms and reassuring patients that there is no serious underlying pathology. Analgesics or glyceryl trinitrate may be tried if necessary, but treatment with drugs is not generally satisfactory. In severe cases the patient should be taught to insert a gloved and lubricated finger into the rectum and stretch the puborectalis which is in spasm, in much the same way as forcibly extending a gastrocnemius in spasm during an attack of cramp.

The photographs were produced by the department of medical illustration, Salford Health Authority, and the line drawings were prepared by Paul Somerset, medical illustration department, Wythenshawe Hospital.

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The ABC of Colorectal Diseases has been edited by Mr D J Jones and Professor M H Irving, department of general surgery, Hope Hospital, Salford.

## Current Issues in Cancer

### Colorectal cancer

R H J Begent

*This is the twelfth in a series of articles examining recent developments in cancer*

Each year 22 000 people die of cancer of the colon and rectum in Britain, making this disease the second most common cause of death from cancer. Five year survival is less than 30%, and until recently surgery was the only treatment that reduced mortality. Moves are now being made towards more screening, adjuvant therapy, and intensive follow up with resection or chemotherapy for recurrence. Implementation of these policies requires structured planning rather than reaction to crises.

These trends have stronger support in the United States than in Britain, where there has been concern that quality of life will be diminished by introducing unproved investigation or treatment. Validated methods of measurement of quality of life make it possible to address such concerns.<sup>1</sup> This review considers the case for a more prospective and active approach to management of colorectal cancer. The various stages of management are listed in table I.

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TABLE I—Components of management of colorectal cancer

Component	Requirements of comments
Case finding Screening	Public and professional awareness Family history, genetic markers, knowledge of predisposing conditions
Surgical resection	Specialist colorectal surgeons
Adjuvant therapy	Some indications but more trials needed
Follow up	Role of intensive follow up uncertain
Palliation	Chemotherapy and radiotherapy useful; quality of life must be assessed

### Screening

#### SIGMOIDOSCOPY

The benefits of sigmoidoscopy in healthy populations are controversial. The proposal that sigmoidoscopy, preferably with a flexible instrument, should be done every three to five years in people over the age of 50 is supported by the National Cancer Institute of the United States, the American Cancer Society, and the American College of Physicians. However, the