The role of surgery for bowel incontinence

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It is now recognised that the results of surgical treatment for bowel incontinence are frequently rather disappointing. It is wrong to raise patients' expectations and push patients into surgical treatment for bowel incontinence unless they are aware of the likely outcome measures. Frequently there is deterioration in continence with age, often surgical treatments last only a short period.

Key words: bowel incontinence, surgical treatment

PREVENTION

Possibly the most important issue in management of bowel incontinence is to prevent it by appropriate measures.

1.1. ANAL SURGERY

Anal operations, particularly for fistula and fissure, may be complicated by impaired continence. The following advice is given.

Avoid internal sphincterotomy at all times.

Internal sphincterotomy may damage the control of faeces and lead to passive incontinence. Certainly internal sphincterotomy for an anal fissure should be avoided until all conservative measures have been tried.

Avoid anal stretch.

Wide instrumentation and anal dilatation should be avoided because it can cause extensive disruption to the internal and external sphincter over a wide circumference of the anal canal.

Avoid a gutter deformity.

Operations round the margin of the anus may result in a gutter defect. This should be avoided wherever possible. Avoid fistulotomy. If a defect is encountered, fill the defect by moving perianal skin into the anal canal.

Whenever possible, use setons and advancement flap procedures in preference to fistulotomy for anal fistula.

1.2. CHILD BIRTH

Childbirth is the most common cause of bowel incontinence and almost always occurs as a consequence of a third degree tear combined with some degree of pudendal neuropathy. Pudendal neuropathy may be associated with prolonged labour and excessive straining during delivery. Third degree tears must be identified.

It is essential if there is a perineal tear that the wound is examined by an experienced obstetrician who has been trained in identification of third degree tears and their treatment.

Treatment of established third degree tears should be undertaken by an experienced obstetrician who has been trained in these repairs. Either a flap over repair or an end to end sphincter anastomosis may be performed with comparable results, but these reconstructions should be performed under antibiotic cover in the operating theatre, not in the delivery suite and mild laxatives should be prescribed after operation so as to avoid faecal impaction. The perineal wound should be carefully scrutinised.

1.3. COLORECTAL SURGERY

Patients undergoing local reconstructive procedures with anastomoses between the colon and the anus or the low rectum should have these operations performed by experienced personnel, who are thoroughly trained in colorectal surgery. Sepsis must be avoided by peri-operative antibiotics, appropriate drainage and faecal diversion. Avoid narrow anastomoses. If the end result is likely to be a narrow anastomosis or a narrow rectum, consideration must be given to a colonic J pouch. If in any doubt about the risk of post-operative sepsis, use a covering defunctioning stoma.

2. TREATMENT OF ESTABLISHED BOWEL INCONTINENCE

2.1 The development of a multidisciplinary team to support patients with bowel incontinence
The multidisciplinary team should consist of incontinence nurses, dietitians, biofeedback therapists, psychologists, physiologists, stoma care nurses, gynaecologists, urologists and colorectal surgeons. If it is possible to engage all these components at a single session, this gives patients maximum support and advice. It is essential to provide patients with information on outcome measures following treatments. It is very important to reinforce the role that patients can take in improving their own symptoms, particularly with regimes such as self-administered enemas, diet and biofeedback.

2.1.A non-surgical treatment

There is an important role for a variety of non-surgical treatments. Anti-diarrhoeal agents may be used if stools are loose. Imodium plays a particularly valuable role in this regard.

Tampons may be used if patients are fearful that they might pass wind or leak faecal material on social occasions. However, tampons are not always well accepted by patients or well tolerated.

Self-administered enemas keep the rectum empty and may play a valuable role. There are certain circumstances where rectal washouts using the apparatus for colostomy irrigation may be of benefit, particularly with patients with neurological problems.

Appendicostomy has proved useful in children and may have a role in adults as well.

Finally, there is the continent colostomy irrigation procedure, which may have a role when incontinence is complicated by impaired rectal evacuation.

Spinal nerve stimulation and an implantable stimulation device to the spinal nerves has been associated with early encouraging results. Long term data is unavailable at the moment.

2.1.b Surgical treatment

2.1.b.a Sphincter repair.

Sphincter repair is a useful operation for localised defects of the external anal sphincter. The success rate depends on the degree of neuropathy and varies from between 40 - 65%. Results deteriorate with time.

2.1.b.b Anterior levatorplasty.

Anterior levatorplasty may be combined with sphincter repair if there is a defect in the anterior pelvic floor. The results are encouraging when used with sphincter repair; when used alone results may be disappointing.

2.1.b.c Post-anal repair.

The role of post-anal repair has been seriously questioned, although there is some evidence that 20-30% of patients still benefit from this operation.

2.1.b.d Total pelvic floor repair.

The combination of post-anal repair and anterior levatorplasty remains a useful option in a small proportion of patients. Long term results are disappointing.

2.1.b.e Muscle transposition.

Gracilis transposition is the most common procedure. It may be complicated by neuropathy from the saphenous nerve and pain from the harvested area in the leg. Non-stimulated muscle transposition may help a few patients, particularly those with anorectal agenesis, but nerve stimulation is usually needed or faecal incontinence, although flatus incontinence may persist. There is a high complication rate to this operation and the proportion of patients who achieve complete continence is very variable.

2.1.b.f Implantable anal bowel sphincter ABS.

The ABS has been used extensively in France and North America. In Britain the problem has been sepsis in the perineum, particularly from MRSA. Over half of the ABS implantable devices used in Britain have become extruded from MRSA infection.

2.1.b.g Stoma.

In intestinal stoma may play a very valuable role in improving the quality of life for patients with bowel incontinence, but many of these patients develop parastomal hernias, there are other late complications such as intestinal obstruction. Mucous discharge from the defunctioned rectum is a problem, necessitating abdominoperineal excision in about one third.

3. PARAMETERS ASSOCIATED WITH A POOR LONG TERM OUTPUT

There are a variety of parameters which are associated with a poor prognosis. They include obesity, poor motivation, anal anaesthesia, perineal anaesthesia, poor compliance to biofeedback, co-existing irritable bowel syndrome, psychological illness, particularly patients seeking litigation, and pudendal neuropathy.