Full-thickness prolapse

Full-thickness prolapse

Complete rectal prolapse (synonym: procidentia) is less common than the mucosal variety . The protrusion consists of all layers of the rectal wall and is usually associated with a weak pelvic floor and/or chronic straining. The prolapse often commences as an intussusception of the rectum, which descends to protrude outside the anus. The process starts with the anterior wall of the rectum, where the supporting tissues are weakest, especially Burrill Bernard Crohn , 1884–1983, gastroenterologist, Mount Sinai Hospital, New Y ork, NY , USA. in women. It is more than 4 /uni00A0 cm and commonly as much as 10–15 /uni00A0 cm in length (Figure 79.9). On palpation between the finger and thumb, the prolapse feels much thicker than mucosal prolapse and consists of a double thickness of the entir e wall of the rectum. Any prolapse over 5 /uni00A0 cm in length will contain anteriorly , between its layers, a pouch of peritoneum. When large, the peritoneal pouch may contain small intestine or bladder. The anal sphincter is characteristically patulous and gapes widely on straining to allow the rectum to prolapse. Complete prolapse is uncommon in children but may occur as a result of malnutrition. In adults, it can occur at any age, but it is more common in the elderly and sometimes in patients with anorexia nervosa. Women are a ff ected six times more often than men, and it is commonly associated with other ge. In pelvic organ prolapse. In approximately 50% of adults, faecal - incontinence is also a feature. Complications of rectal prolapse include rectal ulceration and bleeding, incontinence and even incarceration with ischaemia and necrosis of the rectum. -

Figure 79.9 Full-thickness rectal prolapse. The whole bowel wall protrudes through the anus.

In the case of a child with abdominal pain, the anus should be examined to exclude rectal prolapse as a cause. This should also be distinguished from intussusception protruding from the /uni00A0 anus. Treatment Surgery is required for full-thickness rectal prolapse, and the operation can be performed via a perineal or abdominal approach. Abdominal operations can be by an open or laparoscopic approach. Abdominal rectopexy , either laparoscopic or open, has a lower rate of recurrence (<10%), but when the patient is elderly and very frail a perineal operation is usually safer and, if necessary , can be performed under regional anaesthetic blockade. As an abdominal procedure risks damage to the pelvic autonomic nerves, resulting in possible sexual dysfunction, a perineal approach may be preferred in young men. Karl Thiersch , 1822–1895, Professor of Surgery , Leip zig, Germany . These procedures have been used most frequently: /uni25CF Thiersch’s operation . In this procedure, a steel wire, or silastic or nylon tape, is placed around the anal canal. It has become largely obsolete owing to problems with chronic perineal sepsis, anal stenosis and obstructed defecation, but may be used to augment perineal repair in cases of severe pelvic floor weakness. /uni25CF Delorme’s operation . In this procedure, the rectal mucosa is stripped circumferentially from the rectum over the length of the prolapse (Figure 79.10). The underlying muscle is plicated with a series of sutures, so that the rectal muscle is concertinaed towards the anal canal. The excess rectal mucosa is excised and a mucosal anastomosis performed. The

resulting e ff ect is to reduce the prolapse as a plicated ring of muscle above the anal canal. This operation may be preferred in patients with short segment full rectal prolapse, but recurrence rates are high, in the region of 30% over 5 years.

(a) (c) (b) (d) Figure 79.10 Delorme’s procedure for rectal prolapse. (a, b) The mucosa is stripped from the muscular gut tube. (c, d) Interrupted sutures are used to plicate the muscular gut tube and reduce the prolapse. The operation is concluded by suturing the mucosa.

/uni25CF Altemeier’s procedure . In this procedure, the rectum is prolapsed through the anal canal and a full-thickness resection performed, incorporating any associated colonic prolapse (Figure 79.11). Restoration of colorectal conti- nuity can be performed by either a hand-sewn or stapled anastomosis. This is the procedure of choice in patients presenting with incarcerated and strangulated prolapse. It is a good alternative perineal procedure to the Delorme’s operation, particularly following recurrence. However, it is often complicated by poor bowel control with faecal soiling secondary to loss of the rectal reservoir. Recurrence rates range from 0% to 20%. The advantages of a perineal approach include minimal postoperative pain, early mobility and low levels of morbidity . However, given the higher recurrence ra tes when compared with the abdominal operations, it is best reserved for patients at high risk of complications when undergoing a major oper- ation. Abdominal approach The principle of all abdominal operations for rectal prolapse is to fix the rectum in its normal anatomical position. Many variations have been described, including inserting a sheet of polypropylene mesh between the rectum and the sacrum, hitching up the rectosigmoid junction with a Teflon sling to the front of the sacrum or simply suturing the mobilised rectum to the sacrum using four to six interrupted non-absorbable sutures – so-called ‘sutured rectopexy’ (Goldberg). Currently , the technique is most often performed laparoscopically , reduc- ing the operative trauma, limiting the time in hospital and broadening its indication for higher risk patients. As an abdominal rectopexy may lead to worsening constipation, some surgeons recommend combining this procedure with resection of the sigmoid colon, so-called ‘resection rectopexy’, but this adds an additional risk because of the anastomosis. An alternative is LVMR, w hich has become increasingly popular in western practice (D’Hoore). In this procedure, the plane between the rectum and vagina William Altemeier , 1910–1983, Professor of Surgery , Cincinnati, OH, USA. Stanley M Goldberg , b. 1923, Emeritus Professor of Surgery , University of Minnesota, Minneapolis, MN, USA. André D’Hoore , contemporary , Professor of Surgery , Catholic University Leuven, Leuven, Belgium. (or prostate) is dissected, and a strip of mesh sutured to the anterior rectum and posterior vaginal vault. The upper end of the mesh is secured to the sacral promontory with sutures or tacks, thus resuspending the rectum and preventing prolapse (Figure 79.12).

Figure 79.11 Altemeier’s procedure showing (a) a full-

thickness mobilisation of the prolapse and (b) a hand-sewn coloanal anasto mosis following prolapse resection (courtesy of Ms Ann Hanly, FRCSI, Dublin, Ireland).

(b) Figure 79.12 (a) Laparoscopic ventral mesh rectopexy: a prosthetic mesh is sutured to the front of the lower rectum and used to resus

pend the rectum by securing the proximal end of the mesh to the sacral promontory. (b) Intraoperative image of a robotic ventral mesh rectopexy showing suturing of the mesh to the anterior rectum after dissection of the rectovaginal septum.

and rectal intussusception has been variously reported between 70% and 80%, with improvement in both constipation and incontinence scores. It is a relatively safe procedure (overall complication rate 10%) with a quick recovery because of the laparoscopic approach. Possible complications include pro- lapse recurrence, bleeding, pelvic pain and dyspareunia. More recently , there has been concern regarding mesh complications when used more generally for pelvic organ prolapse surgery , culminating in the 2020 publication of the Cumberlege Report in the UK. As a result, the use of mesh for vaginal surgery has been restricted. When used for LVMR, mesh complications (infection and erosion) have been reported in 2–4% of cases and are higher when a polyester mesh is used.

Revision #1
Created 2025-12-31 15:28:28 UTC by Omar Ayman
Updated 2025-12-31 15:28:28 UTC by Omar Ayman