

Procidentia — Surgical management

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Summary

Some form of Ripstein sling procedure using teflon, marlex or mersilene to fix the rectum into the sacral hollow is a popular surgical option for the treatment of complete prolapse of the rectum. The Ripstein procedure with marlex mesh used in three patients confirms the technical simplicity, safety and effectiveness of the operation in controlling the prolapse. As it is with other current surgical methods which are all uniformly effective in correcting the descensus, there is no certainty of restoring pelvic floor integrity or anal continence once it is lost prior to surgery.

Key words — Procidentia, surgical management, Ripstein operation.

Introduction

Complete rectal prolapse, though uncommon, is an obvious anatomical displacement of the rectum often associated with distressing symptoms which can only be relieved by surgical correction of the descensus. Current surgical methods popularly used have all proven to be quite uniformly effective in control of the prolapse, but unfortunately not one method has shown significant effectiveness in improving pelvic floor dysfunction or anal incontinence existing prior to surgery.^{1,2,3,4}

The management of procidentia in most surgical units remains a challenge as the generally low incidence of procidentia worldwide provides little opportunity for surgeons to develop significant surgical experience in any of the many surgical options currently used in the treatment of rectal prolapse. Furthermore, these are still 'imperfect' operations. It is in such a setting that the limited experience of the management of a total of six cases of rectal prolapse seen in a 6 year period (1982–87) is presented. Some related aspects of procidentia is briefly discussed.

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Case one: A 24 year old trainee pilot was referred by his camp doctor on August 1984 for symptoms associated with Thiersch stitch treatment for rectal prolapse. He gave a history of rectal prolapse since the age of eight, but was not troublesome until 22 years of age, when he sought treatment in Penang General Hospital. A Thiersch stitch was inserted for control of the prolapse. This was repeated a year later when the first stitch gave way. Following the second stitch the patient experienced constipation which needed relief with laxatives and anal suppositories. With time, he also began to have troublesome anal discomfort, defaecation pain and faecal soiling which disrupted his career training and social life badly.

Examination showed a fit young man much distressed by his symptoms. The circumanal nylon suture was seen to have cut through the anal tissues and partly entered into the anal canal. An 8 cm long complete rectal prolapse was demonstrable on removing the circumanal stitch. The anus was slightly patulous with a good anal tone present. Routine investigations including barium enema were normal. As he was fit, the Ripstein sling procedure using marlex mesh was performed. Rectopexy to the sacrum was achieved with a piece of mesh 5 x 12cm, wrapped around the mobilised rectum anteriorly, with the four corners stitched to the presacral fascia of the sacrum. Recovery was smooth with no complications of bleeding, obstruction or infection. All the pre-operative symptoms were relieved with early restoration of normal bowel habits. Soon after, he was able to proceed to Australia for his overseas training. At follow up recently, there was no faecal incontinence or recurrent prolapse. However he complained of inability to sustain penile erection.

Case two: A 50 year old woman, G4P4, was referred from the obstetric and gynaecology department for complete rectal prolapse associated with a third degree uterine prolapse and stones in the urinary bladder. Examination showed a 7 cm long rectal prolapse with mucosal warts. It was reducible and reproducible on straining. The anus was typically lax and patulous. Urine examination showed infected urine due to multiple bladder stones visible on the KUB. Blood tests, CXR and ECG were within normality. Through a lower midline incision, the bladder stones were first taken out extraperitoneally. The uterine prolapse was then dealt with by hysterectomy. The rectum was then fixed to the sacral hollow with marlex as in Ripstein technique. Recovery was uneventful with no serious complications. At the last follow up a year later, the patient was free of the preoperative faecal soiling and had no recurrence of rectal prolapse.

Case three: A 63 year old multiparous and mentally retarded woman was brought by family members for management of constipation, diarrhoea and faecal soiling due to rectal prolapse of two years duration. The patient could not look after herself and could not be kept clean. Examination showed a 6cm rectal prolapse with exposure proctitis and ulceration of the mucosa, a very patulous anus with a poor anal tone. With no contraindications to major surgery, the Ripstein procedure was carried out. No serious complications occurred. Slight faecal soiling and constipation persisted over a three month period after operation, but there was some improvement over the preoperative symptoms. She was lost in follow up after three months.

Of the other three of the six cases seen in the same period, two were elderly females in their seventies, with one of them a mental patient. One refused treatment while the other had a Thiersch stitch inserted. Bowel regulation with suppositories was necessary.

The sixth case was a 75 year old man with an acute painful and irreducible prolapse of 15 cm of rectum associated with rectal carcinoma. The prolapsed rectum was tender, rigid, oedematous, rather long and irreducible, quite unlike the usual prolapse unassociated with tumour. Emergency laparotomy and rectosigmoid resection was done. Postoperative bowel control was good after an initial period of faecal incontinence.

Discussion

Proctidentia is generally uncommon worldwide as is evident from available literature.^{1,4,5} Elderly women, the mental retarded and the psychiatric patient seems more predisposed.^{6,7} In complete prolapse, the full thickness of the rectal wall is turned inside out through the anal canal for a distance of 4–15 cm with characteristic concentric mucosal rings. Rectal wall prolapse reaching the anal verge but not beyond have been termed hidden prolapse, internal intussusception or one stage rectal prolapse. Defaecation symptoms like incomplete evacuation and rectal fullness may be due to hidden prolapse.¹ The anus in most patients is lax and typically patulous. Pile masses, polyps and tumours are occasionally seen with rectal prolapses. Most patients are troubled by the prolapsing bowel itself, which initially reducing spontaneously, may later need manual reduction. Early symptoms of defaecation discomfort may later lead to faecal and urinary incontinence. Severity of the symptoms vary with the size of the prolapse.⁷ The nature of the prolapse itself is controversial, with sliding herniation, rectal intussusception or both as possible processes.¹ Known anatomic associations of rectal prolapse are a lack of rectal fixation to the sacrum with a loss of the normal horizontal position of the rectum, loose endopelvic fascia, diastasis of the levator hiatus, a deep cul-de-sac and a weak anal sphincter.¹

To relieve the symptoms associated with rectal prolapse, treatment would require the control of the prolapse by surgery, improvement of the anal sphincter function and the reestablishment of a normal bowel habit. The choice of treatment has to be considered in relation to the age, the general condition and the life expectancies of the patient. Thus management could vary from doing nothing in a very poor risk patient with short life expectancy to a definitive major procedure in a younger or acceptable risk older patient.¹ In general, reported operative results support a policy of giving the best possible reconstruction to all patients who can take major surgery.^{1,8,9}

Current corrective procedures have been based on the concept that the prolapse is the intussusception of an abnormally redundant or mobile rectosigmoid, thus the prevention or removal of the process by rectal fixation or excisional methods.^{4,5,10} The large number of procedures available indicates the continuing search for the ideal operation. Most of the current options are effective for correction of the descensus with recurrent rectal prolapse rates of 0–12%,^{2,8,9} and have low mortality rates of less than 1%. Faecal incontinence of 11–81% were present in patients of some series, and of these series, more than a third of patients remained incontinent despite successful reduction and fixation of the prolapse.² Ongoing trials with varying methods of rectopexy may show a method with better postoperative continence rates. Roger's combined postanal repair with an intersphincteric Ivalon sponge rectopexy appears to show much promise in this direction.^{2,8,9}

The Ripstein procedure was used for the three patients because it appears technically simple. Also of a variety of sling procedures designed to fix the rectum to the sacral hollow, the most popular operation is some form of Ripstein sling procedure using teflon, marlex or mersilene. Technically, dissection is minimal and the marlex easy to get into position. The recommended size 5 x 12 cm is too large for the smaller local patients. 4 x 10 cm seems more suitable. Complications were insignificant. Control of the prolapse was good. The last case with recurrent faecal incontinence emphasizes the importance of preoperative pelvic floor integrity and anal continence.

Conclusion

The Ripstein sling procedure is a technically simple, safe and effective surgical option for the treatment of rectal prolapse with a reasonable expectation of good results. However, like other surgical options, it may not improve preexisting faecal incontinence even after successful correction of rectal descensus.

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