Summary And Conclusion

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Rectal prolapse remain a disorder for which no single ideal treatment was approved for all cases.

Complete rectal prolapse (procidentia) is the circumferential protrusion through the anus of all layers of the rectal wall. It is most common in young children and elderly adults. Rectal prolapse or procidentia is a disabling problem and controversies regarding its management continue to stimulate interest in the study of its aetiology, pathophysiology, functional aspects, and concepts of surgical management.

Aetiology.

The underlying cause of rectal prolapse remains unclear. It is thought to develop as the result of a series of functional disturbances in muscles of the anterior abdominal wall, pelvic floor, and anal sphincter complex , which creates an initial inversion of the upper rectum towards the anal canal . These underlying abnormalities may be aggravated by certain conditions which appear to be associated with an increased incidence of rectal prolapse. These include connective tissue disorders, neurological illnesses, and high parity.

Pathophysiology.

The pathophysiology of rectal prolapse was first described in the late 19th century, long before abdominal surgery was considered safe. The earl operations were perineal procedures, one of which is the Mikulicz procedure perineal rectosigmoidectomy, first performed in 1889. However, **the aetiopathology** of rectal prolapse remained unknown until 1912 when Moschcowitz proposed the theory of a sliding hernia through a defect in the pelvic fascia as a cause of rectal prolapse. His

theory was based on the presence of a deep rectovesical or rectovaginal pouch in most patients with a complete procidentia. He then went on to describe the Moschcowitz procedure, which involved obliteration of the peritoneal pouch of Douglas by a purse-string. The recurrence rate was, however,80 per cent. Broden and Snellman in 1968 discounted Moschcowitz's theory and put forward the concept of a circumferential intestinal intussusception; the authors demonstrated this phenomenon through cineradiography . *Porter* in 1962 reported that reflex inhibition of the external sphincter and levator muscles with distension of the rectum was more profound and prolonged in patients with rectal prolapse. Parks et al. in 1977 showed that mean resting pressures were maintained in those with rectal prolapse, suggesting a dysfunction of the internal sphincter as a cause of prolapse. There are many other conditions found in association with rectal prolapse. One such association is a connective tissue disorder. *Marshman et al.* in 1987 reported that many patients had an associated increased joint mobility. Other associated factors with rectal prolapse include mental illness, neurological disorders, and parity. *Corma*n described nulliparous women as having the greatest risk of developing rectal prolapse .

There is considerable controversy about the cause of **rectal prolapse associated incontinence.** *Keighley* and *Shouler* demonstrated an increase in sigmoid motility in incontinent patients with prolapse, while continent patients had normal sigmoid motility but delayed whole gut transit. The authors therefore suggested an increase in bowel motility as a cause of prolapse-associated incontinence. Matheson and Keighley found a significantly decreased resting and squeeze anal pressure in incontinent patients with prolapse, but normal pressures in continent patients . Gordon found evidence of denervation of the puborectalis and external

sphincter muscles in incontinent patients. Farouk et al. suggested that repair of rectal prolapse probably allows the internal anal sphincter to recover by removing the cause of persistent rectoanal inhibition. *Duthie* and *Bartolo* claimed recently that the recovery of continence after operation does not depend on sphincter recovery but on improved anorectal sensation. *Delamarre et al.* found an increase in rectal compliance and capacity after surgery in patients treated successfully for rectal prolapse and incontinence.

The association of constipation with rectal prolapse has been reported to vary from 25 to 50 per cent. The exact cause of constipation is, again, controversial and poorly understood. *Metcalf* and *Loening–Baucke* demonstrated a paradoxical increase in external anal sphincter electromyographic activity in those with rectal prolapse who were constipated. Some authors, however, have attributed constipation to a delay in colonic transit. *Speakman et al.* recently showed in a prospective randomised trial that division of the lateral ligaments during rectopexy caused constipation, although it prevented the recurrence of rectal prolapse.

Management.

The management of rectal prolapse is usually surgical. Surgical approaches for rectal prolapse can be classified into either transabdominal or perineal. Perineal procedures were first used in the late 19th century as abdominal surgery was then considered unsafe. *Moschcowitz* first described the **obliteration of the peritoneal pouch of Douglas** based on the fact that rectal prolapse is commonly associated with an abnormally deep cul-de-sac. However, recurrence rates as high as 80 per cent have been reported.

Anal encirclement was first described in 1891 by *Thiersch*. Advantages of this procedure included simplicity, repeatability, and that it required only a local anaesthetic. However, anal encirclement does not cure the disease process.

Mikulicz first described **perineal rectosigmoidectomy** in 1889 and the procedure was repopularised in the 1960s by Altemeier and colleagues. This procedure is based on fixing the bowel to the sacrum by fibrosis around the anastomosis. The recurrence rates have been reported from 0 do 50 per cent.

The Delorme operation is a modification of perineal rectosigmoidectomy in which the prolapsed bowel is not resected; its mucosa is stripped and the muscularis propria of the rectum and sigmoid are plicated and replaced above the levator muscles. Recurrence rates ranging from 5 to 21 percent have been reported.

Abdominal procedures for rectal prolapse usually involve **rectal fixation, large bowel resection or a combination of both.** Rectal fixation, or rectopexy, which was first described by Pemberton and Stalker, involves full rectal mobilisation followed by fixation of the rectum to the sacrum. Most surgeons use a foreign material to help anchor the rectum to the sacrum.

The Ripstein procedure is one of the most commonly used rectal fixation operations. It involves completely wrapping the mobilised rectum with a foreign material and suturing it to the sacrum. The possible complications include erosion of the foreign material and fistula formation and stenosis. Some authors have reported that foreign material is not important in the provocation of an intense fibrous tissue formation, and have shown that sutures alone are sufficient and allow equally low recurrence rates of 0–4 per cent.

Anterior resection has also been described in the treatment of rectal prolapse. The principle in this case is the creation of fibrosis between the anastomosis and the sacrum. A major disadvantage of this procedure, however, includes a possible decrease in continence secondary to a decrease in the rectal reservoir.

A combined colonic resection and rectopexy is also commonly performed. This makes use of the advantages of resection and avoids the disadvantages of rectopexy alone, especially with regard to constipation. Generally, resection rectopexy is reserved for patients who have a history of severe constipation.

The use of **laparoscopic techniques** in the surgical treatment of rectal prolapse has been advocated as having several attractive features. Mobilisation of the rectum laparoscopically has been shown to be safe and feasible.