SURGERY FOR COMPLETE RECTAL PROLAPSE: A SIMPLIFIED APPROACH

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ABSTRACT

Complete prolapse of rectum (procedentia) is said to occur when the full circumference of the rectal wall is everted through the anus. Numerous techniques have been developed in order to treat procedentia, an uncommon pathology that is managed occasionally by the general surgeon. A simple, safe and effective procedure is recommended for surgeons who treat procedentia recti once in a while. We describe a simple rectopexy procedure which has been used effectively in 38 patients in the last 10 years. In this prospective study we evaluated the results which are comparable to other standard operative techniques in terms of morbidity, anatomic correction and bowel function. This technique is based on sound scientific principles in the aetiopathogenesis of rectal prolapse. This procedure obliterates the abnormally deep cul de sac of rectovesical pouch and supports the anterior rectal wall by suturing it to the bladder base to prevent initiation of sliding herniation of anterior rectal wall, which causes procedentia recti. Posterior dissection fibrosis fixes the posterior rectal wall to the sacrum after healing and restores the normal posterior curve of rectal canal and corrects the pathogenic straightening of rectum which promotes prolapse. Minimal mobilization of rectum is done and lateral ligaments are not dissected hence all attendant complications e.g. impotence, urinary incontinence, constipation etc are avoided. Simplicity, effectiveness, safety and non requirement of prosthetic material makes it an ideal operation suitable for a general surgeon working in the periphery.

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KEY WORDS: Procedentia; Rectopexy.

Introduction

Rectal prolapse is comparatively an uncommon condition. Most of the surgical maneuvers are relatively esoteric and can be performed successfully only in a few specialised centers where they were developed. As of now there is consensus that some form of abdominal rectopexy is procedure of choice for fit patient. Fecal incontinence improves in majority of patients following successful correction of rectal prolapse. With these considerations in mind we discuss a simple, safe and effective procedure used successfully in 38 patients. It is most suitable for young general surgeons working in periphery and treating procedentia recti occasionally.

Material and Methods

38 patients were operated from 1978 to 1996 in various service hospitals by the authors. Most of the patients were serving soldiers or ex-servicemen, only 2 females were operated. Both patients gave history of difficult and prolonged labour leading to hysterectomy. Only patients with complete rectal prolapse were included. All the patients complained of excessive straining at stools and stool frequency of 4-5 per week. All patients had sense of incomplete bowel evacuation. All were symptomatic with minimal duration of 10 months. Seven patients had incontinence to flatus (Parks grade II) and 3 patients had incontinence to watery stool (Parks grade III). All cases had prolapsed during defecation. No case was truly incontinent or had irreducible prolapse or had prolapsed at

rest. Diagnosis was evident in most cases, however one needs to exclude large interno-external haemorrhoids or mucosal prolapse as the cause of mass rectum. Most cases occurred between 2nd to 5th decade. Two cases were recurrence of previous failed Thiersch operation done elsewhere.

The commonest cause of chronic constipation was faulty dietary habits. Prolonged holding of stools due to unfavourable place or time also contributed to constipation.

Operative Technique

Routine investigations, preanaesthetic check up and preoperative bowel preparation as for any rectal operation was done. GA, Spinal epidural anaesthesia was used as per the choice of the anaesthetist. Preoperatively bladder was catheterized and 300 cc of saline was pushed to inflate bladder. Left paramedian incision and trendelenberg's position was used in all cases. After opening the peritoneum the small intestines were packed off using roller gauge. Self retaining retractors were then inserted. Pelvic peritoneum medial to ischial spine was lifted away from the ureter with a haemostat and dissected upto the wall of rectum. Two stay sutures were placed on the posterior wall of the urinary bladder to bring it into focus of the operative field to make suture placement easy, urinary bladder was then deflated. Anteriorly pouch of Douglas was opened and bladder was dissected off the rectal wall. Limited posterior mobilization of rectum was then done. Two fingers were passed behind from either side and by moving them up and down, the rectum was dissected till the finger tips met each other. Only 3 inch of lifting of rectum from the sacrum was done. Redundant rectosigmoid was then pulled up by the assistant. Abnormally deep pouch of Douglas was then obliterated by suturing upper layer of pelvic peritoneum to superficial peritoneal fringe of

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TABLE 1

Similarised abdominal rectopexy for repair of complete rectal prolapse : Comparison with other techniques

Type of opr	Worker	No	Mortality	Recurrence	Remarks
Rectosigmoidectomy with pelvic floor repair	Goligher (9)	63	1	8%	8% mucosal prolapse
Perineal Rectopexy	Wyatt (11)	22	0	4%	10% mucosal prolapse
Ivolon sponge post rectopexy	Morgan (12)	150	4	3%	8% mucosal prolapse
Marlex Mesh rectopexy	Keighley (6)	100	0	0%	4% mucosal prolapse
Suture rectopexy	Carter (2)	32	0	3%	10% mucosal prolapse
Our Series	Chaturvedi and Harjai	38	0	2.6%	2.6% mucosal prolapse

the urinary bladder just below the fundus using chromic catgut. Sutures were also placed between rectal wall and dependent part of urinary bladder to provide anterior support to anterior rectal wall. Operative incision was then closed in layers without drain, using standard technique.

Post operative care: Routine care as for any laparotomy was instituted. Oral feeds were started following passage of flatus. Stools were kept soft using mild laxative and high fiber diet/Isabgol. All patient were given dietary education to avoid constipation.

Results

Our study showed male preponderance M:F of 95:5 which is much different from other western studies M:F 10:90. Median age also was much less at 42 years ranging from 2nd to 5th decade. This probably is due to typical clientele of service hospitals in periphery.

Excessive straining at stool was present in 100% of cases and most passed 4-5 stools/week. This probably was due to excessive intake of meat, tinned food and low fiber content diet due to lack of vegetables.

All patients reported for follow up. Maximum follow up of 10 years in 13 cases and minimal of 1 1/2 yr. in two cases was available. Mean operative time was 50 minute and mean hospital stay 10 days. Faecal soiling and anal tone improved in all but one case. Constipation improved in 75%. One full thickness prolapse and one partial mucosal prolapse recurred. Both patients had persistent severe defecatory straining. No patient had urinary incontinence, impotence or aggravation of constipation. There was no wound or intra abdominal sepsis. 30% of cases had discomfort in hypogastric region, lasting 6-7 days. This was possibly due to placement of suture in bladder base. Prolapse control and incontinence improvement results of our method compare well with other techniques of rectopexy (Table 1).

Discussion

Despite diversity of operative method and approaches in the surgical treatment there is consensus regarding some aspect of its management. Abdominal rectopexy is the best form of repair in patients who are fit to undergo surgery [1]. Perineal approaches are reserved for frail, old and debilitated patient [2]. Most abdominal techniques effectively control prolapse but have a failure rate of approximately 4%[3]. Correction of prolapse abolishes rectoanal proinhibitory influence of mass in the rectum and leads to improvement in faecal incontinence [4]. Dissection and sacrifice of lateral ligament is associated with higher incidence of impotence and constipation and urinary incontinence

[5]. Use of prosthetic material to reinforce repair is accompanied with increased sepsis, approx.3%-4% [3,6]. Resection of redundant rectosigmoid may correct constipation (which may be the basic cause of prolapse),[7], but is accompanied by increased anastomotic leak and sepsis and may cause bowel disturbance due to loss of compliant rectal reservoir [8]. Hence a balance must be struck between risk of recurrence of prolapse vis-a-vis various complications.

Efficacy of simple suture rectopexy is time tested with recurrence rate varying from 4-10% [9]. Experience of various operators on reexploration of pelvis after low anterior resection revealed that dense post operative fibrosis fixes rectum to the sacral hollow [2]. In view of all the above we modified and developed a simple technique of abdominal rectopexy.

Placement of sutures between bladder base and anterior rectal wall provides additional support and prevents initiation of sliding herniation of anterior rectal wall which later develops into full procidentia [9]. Limited 3 inch approx. mobilization of posterior rectal wall from sacrum safeguards autonomic nervous plexus located around lateral ligaments and prevents complication of impotence, urinary and bowel dysfunction [10]. This step also makes surgery simple and reduces operative time. Our mean operation time was 50 min. We rely on post operative fibrosis fixation of post rectal wall and anterior rectal wall support. This prevents acute angulation of rectum due to suture which often worsens constipation due to faecal impaction [1,10]. Troublesome occasional bleed due to pricking of presacral vessels is also avoided. Resection of rectosigmoid with its attendant complication is prevented in our technique. Increased sepsis and other complications associated with use of synthetic material are also obviated in our method.

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