



A Comparative Study of Abdominal Versus Perineal Approach in Management of Rectal Prolapse

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ABSTRACT: BACKGROUND: Rectal prolapse is protrusion of part or whole rectum through the anal orifice. Management of this condition includes different surgical approaches.

AIM: To evaluate and compare Abdominal versus Perineal repair in surgical treatment of rectal prolapse.

MATERIALS AND METHODS : Patients with full thickness prolapsed rectum, normal colonic transit and those found fit in ASI grade 1 and grade 2 were selected for the study. Surgical approaches were reviewed in terms of post operative complications.

RESULTS: Out of 27 cases, 21 cases underwent Open abdominal procedures (in which resection rectopexy for 9 cases and pre-sacral rectopexy only for 12 cases) and 6 cases underwent perineal repair (Altemeier-4 Delorme-2). Average hospitalisation was shorter for perineal than abdominal procedures. Postoperative complications were more in abdominal than perineal repair. No mortality and no recurrence.

CONCLUSION: The type of surgery for patients with rectal prolapse should be selected by taking patients overall condition and surgical experience into account. In young patients, abdominal approach must be performed but laparoscopic approach has its advantage. Altemeier's procedure shall be chosen in older patients with low complication rate and recurrence.

I. INTRODUCTION

RECTAL PROLAPSE, OR PROCIDENTIA, is defined as a protrusion of the rectum beyond the anus. Complete or full-thickness rectal prolapse is the protrusion of all of the rectal wall through the anal canal; If the rectal wall has prolapsed but does not protrude through the anus, it is called an occult (internal) rectal prolapse or a rectal intussusception. The aim of treatment is to control the prolapse, restore continence, and prevent constipation or impaired evacuation. This goal can be achieved by (1) Resection or plication of the redundant bowel and/or (2) Fixation of the rectum to the sacrum. In incontinent patients, the patulous sphincter ani

begins to regain its tone approximately 1 month after the procedure, and full continence is generally restored within 2 to 3 months. Numerous procedures have been described for the treatment of rectal prolapse and are generally categorized into perineal or abdominal approaches.

MATERIALS AND METHODS: Its a prospective study of 27 patients with complete rectal prolapse admitted in NRIGH hospital during the period October 2018 to September 2020 after departmental and institutional ethics committee clearance was taken. All adults age (greater than 18 years) Patients admitted under department of general surgery, NRI Medical college & Hospital. Patients with isolated full thickness prolapsed rectum, normal colonic transit and those found fit in ASI grade 1 and grade 2 were selected for the study. Patients were excluded if operated for recurrence, if concomitant gynecological procedures are planned, paediatric patients age less than 18 years. Different surgical approaches (abdominal, perineal) were reviewed and the outcome in terms of post operative complications were evaluated. The nature of the procedures and the complications associated were explained to the patients.

The type of procedure was based on Preference of patient. All patients underwent preoperative colonoscopy to rule out neoplasia. All patients received 2 or 3 generation cephalosporins which was given at the time of induction of Anaesthesia and continued for two to three days depending on surgeon's choice. Nature of parenteral analgesia was usually opioid/NSAID at the standard dose required. Postoperative pain was evaluated using visual analogue scale (VAS) at 12 hours, 24 hours and 48 hours postoperatively. Postoperative complications/morbidity like surgical site infection, burst abdomen, constipation, incontinence, persistent perianal pain, urinary retention, paralytic ileus, anal stricture, were observed.

RESULTS: 27 cases with full thickness rectal prolapse were operated during the period of study. 18 cases underwent open abdominal procedures in



which resection rectopexy for 6 cases and pre-sacral rectopexy (suture rectopexy for 8 cases and mesh rectopexy for 4 cases). 9 cases underwent perineal repair (altmeier's-6 delorme-3). Average hospitalisation was shorter for perineal than abdominal procedures. Post op complications and

morbidity were observed in 3 cases of abdominal procedures within follow up of 6 months, no mortality and no recurrence. Baseline characteristics of patients with complete rectal prolapse who underwent abdominal or perineal procedure

CHARACTERISTICS	ABDOMINAL PROCEDURE	PERINEAL PROCEDURE
AGE	52+/-7	67+/-12
SEX , F/M	6/12	5/4
REDUCIBLE, YES	17	5
PROLAPSED LENGTH IN cm	6.2+/-2.6	5.2+/-2.8
DURATION OF PROLAPSE	4+/-3	8+/-4
PRESENCE OF COMORBIDITIES	12	4

Post operative complications Abdominal versus Perineal repair

VARIABLE	ABDOMINAL PROCEDURE	PERINEAL PROCEDURE
WOUND INFECTION	4	1
URINARY RETENTION	2	1
ANAL PAIN DURING DEFAECATION	1	0
ILEUS	1	0
ANASTAMOTIC SITE LEAKAGE	0	0
ANAL STRICTURE	0	0
TEMPORARY HEMATOCHYZIA	0	0

DISCUSSION: Several operational procedures for complete rectal prolapse have been performed in our institution over the past 3 years.

PRE-SACRAL RECTOPEXY was the most commonly performed procedure in our institution throughout the entire study period. In my study rectal prolapse were more common in men than women.

Peak incidence in women is in their 7 decade whereas in men the incidence drops after 5 decade. Patients with prolapse most frequently complain of protrusions of rectum during defecation. This may reduce spontaneously Or require manual reduction. Patients frequently complains of constipation and tenesmus.

Incontinence is major complaint of more than half of the patients.(20 cases)

Less frequent presenting symptoms include bleeding, painmucous discharge.

ABDOMINAL PROCEDURES: Many abdominal techniques have been described, differing only in the extent of rectal mobilization, the methods used

for rectal fixation, and the inclusion or exclusion of resection.

SUTURE RECTOPEXY: The mobilization and subsequent healing by fibrosis tends to keep the rectum fixed in an elevated position as adhesions form, attaching the rectum to the presacral fascia.

RIPSTEIN PROCEDURE (ANTERIOR SLING RECTOPEXY) : The procedure includes a complete mobilization of the rectum and a subsequent fixation of it to the fascia lata or with synthetic materials to the anterior wall of the rectum and fixates the sling to the sacrum by sutures.

RESECTION RECTOPEXY: By resection of the excessive rectum, torsion or volvulus of the sigmoid colon can be prevented. Also, by shortening the left colon, the mobility of the left colon supported by the diaphragm ligaments almost disappears, which helps prevent recurrence. In addition, relief from constipation can be anticipated in some patients



PERINEAL APPROACHES

DELORME PROCEDURE: It peels the mucosa of the prolapsed bowel, plicates the remaining muscle layer and performs mucosal anastomosis.

ALTEMEIER'S PROCEDURE: The Altemeier procedure reinforces the pelvic floor muscle after resecting the prolapsed bowel, closing the pouch of Douglas.

Performing a lavatoplasty in combination and should remove the prolapse and improve incontinence. Summarizing studies reported until now, in comparison with the perineal approach, the recurrence associated with the abdominal approach is low, and the improvement of faecal incontinence is superior.

Thus, except for elderly patients of the high risk group, the abdominal approach has been recommended. Simple rectopexy is sufficient, and the use of meshes and other foreign materials should be restricted. For patients with constipation or patients with a long excess bowel, resection may be performed in combination.

Focusing on the prevention of recurrence, lateral ligaments should be resected, and for the prevention of the deterioration of constipation, lateral ligaments should be preserved. For high risk patients, the perineal approach should be selected. Since its recurrence rate is higher than that of the abdominal approach, the possibility of a reoperation should be discussed sufficiently. The Delorme procedure or the Altemeier procedure is selected depending on the length of prolapse and on the experience and familiarity levels of the surgeon. Perineal approach is favoured due to shortening of hospital stay, early return to normal life, low surgical stress, and good cosmetic effect, even if the possibility of recurrence is somewhat high. Although many kinds of surgical methods for rectal prolapse have been introduced, there is no surgical procedure that satisfies all kinds of postoperative complication. The incidence of rectal prolapse is low and many diverse surgical methods have been introduced; thus, it is difficult to compare diverse surgical methods on a sufficient number of patients. The type of surgery for patients with rectal prolapse should be selected by taking patients overall condition and surgical experience into account. The Perineal procedure can be performed effectively in all rectal prolapse patients, especially for elderly high risk patients, patients with constipation or evacuation difficulties and treatment outcomes comparable to the abdominal approach can be anticipated. The perineal procedure operation time is short and general anaesthesia is not required, so it can be applied to the high risk group. In addition, recurrence and recovery bowel function

after surgery are not inferior to those of the abdominal approach, it causes less immediate and delayed complications. Thus, it can be applied to all rectal prolapse patients except for those in whom deterioration of faecal incontinence after surgery is a concern. Both have less recurrence rates and abdominal procedures have high intraoperative blood loss and high operative risk.

II. CONCLUSION:

The type of surgery for patients with rectal prolapse should be selected by taking patients overall condition and surgical experience into account. In young patients, abdominal approach must be performed. Perineal procedure should be chosen for all rectal prolapse patients, especially for elderly high risk patients.

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