

## **Clinical And Functional Result of Delorme's Procedure Combined With Post Anal Repair In Full Thickness Rectal Prolapse.**

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### **Abstract**

Full thickness Rectal Prolapse was treated with Delorme procedure combined with post anal repair. Sixteen patients (6 male and 10 female) were eligible for study with this procedure at JLMNCH, BHAGALPUR during Aug 2011 to Oct 2015 . All patients presented with complete rectal prolapse at least 5 cm in length. The associated disorders included constipation, variable degree of incontinence. The median follow up was 24 months. Recurrence of Prolapse occurred in 2 patients. Ten patients with faecal incontinence showed post - operative improvement and constipated patient showed improvement post operatively in 4 of 6 cases. Delorme's operation combined with post anal repair in the treatment of complete rectal prolapse is a safe procedure that corrects the anatomical defects and improves the functional outcome. Delorme's operation not only avoids abdominal procedure but is the treatment of choice in rectal Prolapse in elderly frail patient.

**Keywords:** Rectal Prolapse, Delorme's operation

### **Introduction**

Rectal Prolapse is a distressing condition that is encountered more frequently with increasing age, constipation and faecal incontinence often accompany it<sup>[1]</sup>. Rectal Prolapse is defined as a protrusion of the rectum

beyond anus. Complete or full thickness of rectal Prolapse is the protrusion of all the rectal wall more than 4 cm . There are several anatomical abnormalities associated with Prolapse although it is unknown whether these are the cause of or simply associated with the anorectal dysfunction<sup>[2]</sup> . Many operation described for rectal Prolapse attempt to correct one or more of the anatomical change present thereby improving anorectal function and in particular control Prolapse. Abdominal surgical procedure usually control Prolapse but produces variable improvement in continence but with a risk of sexual dysfunction in adult.

Perineal operations are less traumatic for frail patient<sup>[3]</sup> . Delorme's procedure involves mucosal stripping of the prolapsed rectum, described by Delorme<sup>[4]</sup> .

The operation has resolved faecal Incontinence with a variable degree<sup>[5]</sup> and has not been found to be associated with constipation after operation<sup>[6]</sup> .Reports of success with this procedure have been confirmed by Uhling and Sullivan and others<sup>[7,8,9]</sup> .

In this study we aimed to correct more anatomical abnormalities and improve function outcome of Delorme's procedure by addition of post anal repair.

## **Material and Methods**

Sixteen patients with full thickness rectal Prolapse were operated with Delorme's procedure. Assessment of patient one day before surgery included a detailed history of bowel function and through clinical examination. All patients were asked to take low residue diet for 3 days before surgery. The operation was performed under spinal anaesthesia in lithotomy position. A 1:200000 Solution of adrenaline was infiltrated submucosally approximately 3 cm above dentate line. Mucosal stripping was taken, The length of mucosa resected varied between 10 and 25 cm.

The rectal muscle was then vertically plicated in 6 quadrants with vicryl 1-0. As suture were tied muscle was plicated and an interrupted mucosa to mucosa closure performed. For post anal repair a posterior circumanal incision. The intersphincteric plane was dissected till ileo coccygeus muscle and puborectalis was reached. Puborectalis ileococcygeus muscle and external anal sphincter were reefed with vicryl.

## **Results**

The mean operative time was 75 minutes (range : 60-90 min). There was no mortality and 2 patients required blood transfusion of one unit blood.

Mean hospital stay was 5 days. Post-operative complications included suture line bleeding, urine retention and infection. Outcomes of procedure were satisfactory in 13 patients (81%). Only 2 patients developed recurrence (12.25%). Constipated patients showed Post-operative improvement in 4 of 6 patients. 10 patients with faecal incontinence showed postoperative improvement.

## **Discussion**

Delorme's operation is a perineal procedure in which the prolapsed bowel is not resected. The operation restores anal mucosa to its position with subsequent improvement in anorectal sensation. This improvement results in

continence recovery after operation. It is thought that incontinence may be improved by Delorme's procedure because it creates a bulky circumferential mass of rectal wall muscle around the upper anal canal and lower rectum<sup>[10]</sup>.

Manson et. al.<sup>[11]</sup> reported a recurrence rate of 32% after Delorme's operation alone, while Browning et. al.<sup>[12]</sup> reported a recurrence rate of 50% when post anal repair was used alone in patient with rectal prolapse and faecal incontinence. Liebeth et.al.<sup>[13]</sup> in their study reported recurrence rate of 12.5%, which is near to our result.

Post anal repair has been recommended as the treatment of choice for patients with faecal incontinence associated with complete rectal prolapse. It significantly increases the length of the high pressure zone and high resting pressure<sup>[14]</sup>. Pescaton et.al.<sup>[10]</sup> combined Delorme's procedure with sphincteroplasty in 33 patients with good result achieved in 79% of patients. Delorme's procedure represents a surgical alternative for patient with prolapse who may be unable to tolerate more extensive operation, such as elderly, frail patients and those who are medically unfit for major surgery<sup>[15]</sup>.

Result of recent studies<sup>[16,17]</sup> are consistent with the previously published experience that most preoperative evacuatory symptoms resolve with repair of the prolapse, and serious complications are uncommon. The observation that recurrence and complication rates may be lower in younger, medically fit patient suggests Delorme's repair need not be restricted to older, medically unfit patient. The addition of post anal repair to Delorme's procedure at the same time for repair of complete rectal prolapse in adults greatly corrects the anatomical defects and improves the functional results.

## **Conclusion**

Because of low incidence of postoperative constipation and significant improvement in rectal sensation and

compliance, we believe that Delorme's operation, coupled with avoidance of abdominal procedures is the treatment of choice in elderly frail patient and in patient with defaecatory disorder.

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