

# Rectal Prolapse-Simplest Management by Using Ekehorn and Rectopexy

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## ABSTRACT

**Objectives:** Report out experience of the treatment of rectal prolapse in children by using the simplest method “posterior rectal wall stitch”-“EKEHORN S RECTOPEXY”.

**Design:** Selection of the cases was at random.

**Place and duration of study:** The study was conducted in the department of pediatric surgery of Fatima Memorial Hospital Lahore from January 1997 to December 2010.

**Results:** All patients having history of rectal prolapse for more than three months having no congenital anomalies and no operation carried out in the perineal region were included in the study. In all patients first of all underlying cause was treated and then posterior rectal wall stitch was applied. The major causes leading to rectal prolapse were gastroenteritis, malnourishment, worm's infestation and rectal polyp. Our successes rate was 98%. In 1% cases recurrence occurs which heals spontaneously and in 1% cases infection occur for which antibiotics have to be used.

**Conclusion:** Despite the number of methods available, the posterior rectal wall stitch-Ekehorn s rectopexy, is an ideal method of treatment with minimal complications, recurrence rate and is the cheapest one.

**Key words:** Rectal prolapse, posterior rectal wall stitch, Ekehorn s Rectopexy.

## INTRODUCTION

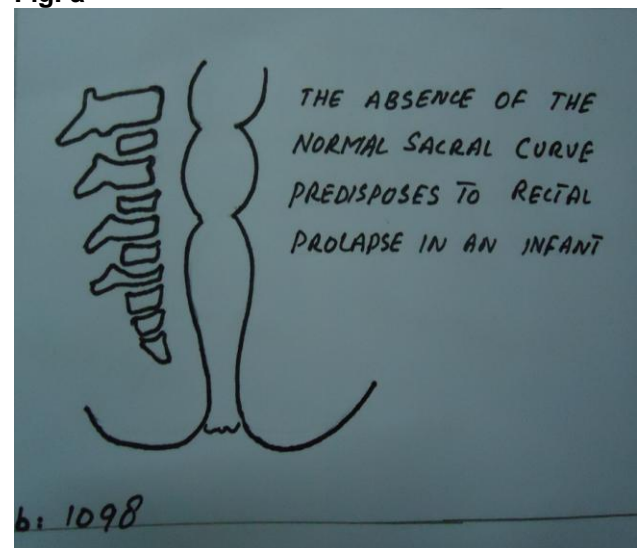
Rectal prolapse is a rare and distressing condition with a multifactorial etiopathogenesis. Conditions predisposing to straining are the most common causes like constipation and diarrhea. Some times their correction usually leads to the disappearance of the problem<sup>3</sup>. Other causes like cystic fibrosis, neurological abnormalities, rectal polyp, worm infection, malnutrition should be ruled first before this surgical correction. Two type of prolapse encountered i.e., acute prolapse and chronic or recurrent prolapse or on the other way we can classify as<sup>2,3,4</sup> mucosal prolapse or incomplete prolapse and complete prolapse or procidentia.

In simple prolapse normal healthy pink mucosa protrudes a centimeter or more (approximately 1-4cm) through the anus. In long standing cases, the bowel becomes edematous, engorged and begin to bleed. In procidentia, the protrusion consists of all layers of the rectal wall and is a descending hernia-en-glissade of the rectum downward through the levator ani. The protrusion is more than 4cm and commonly as much as 10-15cm in length. On palpation the prolapse feels much thicker than a partial prolapse and consist of a double thickness of the entire wall of the rectum.

The condition occur most often at the extremes of life-infants, children and in elderly peoples. In

infants the direct downward course of the rectum, undeveloped sacral curve (Fig. a), lack of support by the levator ani muscle, the loose attachment of the rectal mucosa to the underlying muscularis, the absence of Houston valves in approximately 75% of infants younger than one year of age and the reduced resting anal tone, which offers diminished support to the mucosal lining of the anal canal are supposed to be the causes<sup>3,4</sup>.

Fig. a



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In rectal prolapse (what ever is) the initial treatment is to treat the cause and manual reduction of the prolapsed<sup>3</sup>. We advise the patient to:

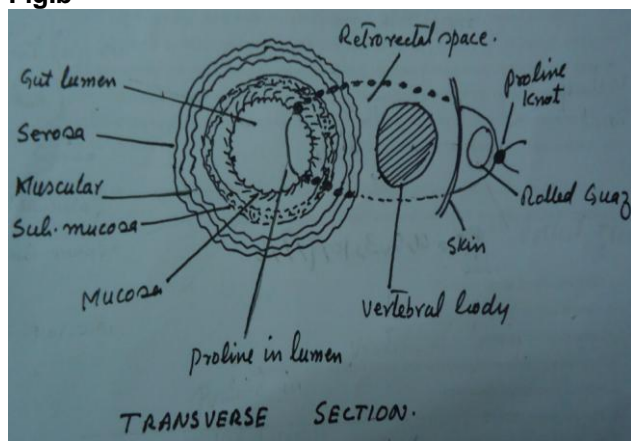
1. Treat the loose motion or constipation
2. Use the commode or potty-chair for defecation, so that the closed perineum will support the external anal sphincter.
3. After manual reduction strapping of the perineum.
4. After reduction, raise the foot end of the bed so that due to gravity it remains reduced.

If all the above measures failed, then go for the operative treatment.

**MATERIAL AND METHODS**

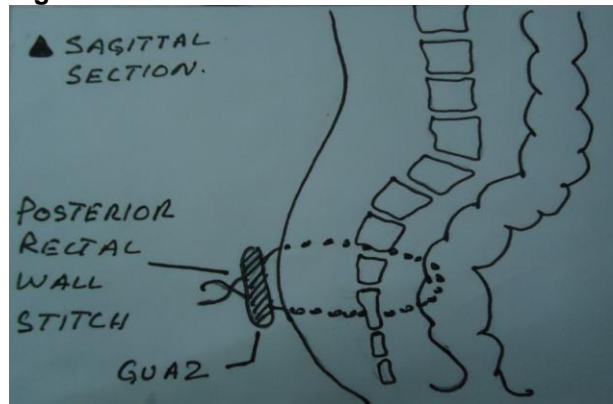
Children of different age group were included in this study ranging from infants 6 months to 14 years of age. The study period was between “December 1997 to December 2010”. All patients having history of rectal prolapse for more three months were included in this study except the patient having rectal prolapse with rectal polyp were admitted with no delay. All patients having associated anomalies were excluded from the study. Patients presented to us in the OPD having rectal prolapse for less than three month were treated initially conservatively. All the patients were admitted for 2-3 days only. Only routine investigation like CBC and urine analysis was done. In the post operative period only pain killer was given with no antibiotic cover. The stitch was removed after 14 days in all case.

**Fig.b**

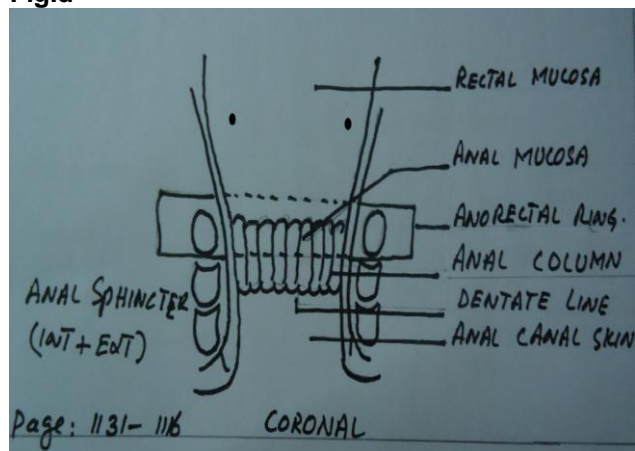


The idea of applying posterior rectal wall stitch is to provide mechanical support to the rectum with the sacrum and to crate an inflammatory reaction between the rectal layers and between the rectum and sacrum. This inflammation later on provides the adhesion between the rectal layers, with the sacrum and support to the rectum.

**Fig.c**



**Fig.d**



The position of the patient is either lithotomy or left lateral position. The stitch is applied under anesthesia. This stitch used is praline no.1 or 0/0 with two large curved needles, one on either side. About 2-3cm apart and 3-4cm above the dentate line, needles are passed from within outward on either side of the sacrum and by putting the rolled gauze the stitch is tied their.

**DISCUSSION**

The appearance of part of a child “inside” protruding through the anus is a frightening experience for a mother. Yet with the growing age and developing emotions, the parents are frightened with the surgical treatment of the rectal prolapse. That’s why the chronic recurrent cases are more. Rectal prolapse is a rare and distressing condition with a multifactorial etiopathogenesis<sup>8</sup>. The conditions predisposing to staining mostly diarrhea or constipation are the most common causes. Other causes are cystic fibrosis, neurological abnormalities, rectal polyp, imperforate anus, fistula in ano, repair and debilitating conditions. In infants and children the most common type is the partial prolapse. Rectal prociencia represent

classically only 2% of the prolapse in children<sup>5</sup>. Children with prolapse will be treated with stool softener and bulk agent in an attempt to avoid straining during bowel movements.

Education of the mother about the manual reduction of the rectal prolapse and to stay there is the main stay of the treatment. Training of the parents to reduce the mass when first seen can help to prevent the edema, bleeding and soilage associated with a neglected prolapse. Manual reduction is easy and simplest one. The herniated bowel is grasped with tips of the finger of the gloved hand applied circumferentially and pushed in. if there is edema, firm steady pressure of the finger tips for several minutes may be necessary to reduce the swelling and permit reduction of the prolapsed<sup>1,4</sup>.

Although considerably in excess of 100 different surgical technique have been reported for the treatment of rectal prolapse. Only very few have finally been accepted in like;(1,2,3,6,7,9,10)

1. Modified sutured sacral rectopexy.
2. Ripstein rectopexy.
3. Laparoscopic rectopexy.
4. Posterior sagittal anorectoplasty- Levator repair through this approach.
5. Posterior plication of the rectum.
6. Thiersch purse string stitch.
7. Injection-sclerotherapy-treatment.
8. Lockhart mummery procedure.
9. Radical perineal excision.
10. Linear electro cauterization.
11. Sub-mucosal cows milk injection sclerotherapy.

The diversity of approach reflects the lack of satisfaction with any single surgical technique in the treatment of prolapse of the rectum. The optimal surgical procedure is still under debate. Therefore the aim of this study is to evaluate the short-term outcome of perineal procedure in-patient with rectal prolapse.

Age of presentation (n=117)

| Age limit   | n= | %age  |
|-------------|----|-------|
| 7-12 months | 9  | 7.69  |
| 1-3 years   | 33 | 28.20 |
| 4-6 years   | 40 | 34.18 |
| 7-10 years  | 25 | 21.36 |
| 11-14 years | 10 | 8.54  |

Causes of rectal prolapse (n= 117)

| Age limit    | n= | %age  |
|--------------|----|-------|
| Diarrhea     | 53 | 45.29 |
| Constipation | 27 | 23.07 |
| Marasmic     | 20 | 17.09 |
| Rectal polyp | 10 | 8.54  |
| No etiology  | 07 | 5.98  |

We use the simplest and easy method of posterior rectal wall stitch which provides more than 98% success with minimal complications. We manage 117 cases of different age groups with rectal prolapse. The maximum incidence noted was between 1-6 years of age. The etiology leading to prolapse was 45.29% cases of diarrhea, 23.07% cases of constipation, 17.09% cases marasmic, 8.54% cases of rectal polyp and in 5.98% cases no pathology identified.

## CONCLUSION

The posterior rectal wall stitch is an ideal, easy, simplest and cheapest method with minimal complication. We use this method with some modification by using monofilament instead of multifilament.

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