



CASE STUDY OF GRADE IV RECTAL PROLAPSE AND ITS SURGICAL MANAGEMENT

¹Dr Shrikant Bhosale

²Dr Dhanraj Gaikwad

¹PG Scholar Shalyatantra Department, Tilak Ayurved Mahavidyalaya, Pune

²Guide-Asso. Professor, Shalyatantra Department, Tilak Ayurved Mahavidyalaya, Pune

Abstract-

Grade IV rectal prolapse represents the most advanced stage of full-thickness rectal prolapse, characterized by permanent, irreducible protrusion of the rectum through the anal canal. It commonly affects elderly individuals, particularly females, and is associated with chronic straining, pelvic floor weakness, and conditions that increase intra-abdominal pressure. Patients typically present with a visible mass per anus, fecal incontinence, mucous discharge, bleeding, and discomfort, significantly impairing quality of life.

Diagnosis is primarily clinical, based on physical examination, though adjunctive investigations such as defecography, colonoscopy, and anorectal manometry may be utilized to assess associated pathology and functional impairment. Conservative management has a limited role in Grade IV prolapse due to its irreducibility and severity of symptoms.

Surgical intervention remains the definitive treatment, with procedures broadly categorized into abdominal (e.g., rectopexy with or without resection) and perineal approaches (e.g., Altemeier's or Delorme's procedure). The choice of surgery depends on patient factors such as age, comorbidities, and surgical risk. Abdominal approaches are associated with lower recurrence rates, while perineal procedures are preferred in high-risk patients due to lower operative morbidity.

In conclusion, Grade IV rectal prolapse is a severe condition requiring prompt surgical management to alleviate symptoms, restore continence, and improve patient quality of life.

Introduction- Grade 4 rectal prolapse represents the most advanced stage of full-thickness rectal prolapse, characterized by permanent circumferential protrusion of the full thickness of the rectal wall beyond the anal verge, which does not reduce spontaneously and cannot be manually reduced easily. It is commonly seen in elderly females but may occur in males and younger individuals with chronic straining, pelvic floor dysfunction, neurological disorders, or previous pelvic surgeries.

The condition results from progressive weakening of the pelvic floor muscles, laxity of the rectal supporting ligaments, and abnormal anorectal anatomy, leading to telescoping (intussusception) of the rectum. Grade 4 prolapse is associated with significant morbidity, including fecal incontinence, constipation, mucosal ulceration, bleeding, mucous discharge, perineal discomfort, and risk of strangulation.

Because of its severity and impact on quality of life, surgical correction is the definitive treatment, with abdominal or perineal approaches chosen based on the patient's age, comorbidities, and pelvic floor function. Early recognition and management are essential to prevent complications such as ischemia and gangrene of the prolapsed segment.

Case presentation- Chief Complaints-

A 70 years old female patient visited OPD of our hospital with complaints of palpable mass at anal region, intermittent PR bleeding, something coming out from anus. History of present illness Approximately since 6 months

History of past illness-

Surgical history of vaginal hysterectomy 25 yrs ago

Open TL 28 yrs ago

DM II since 1 yr under treatment

Laboratory examinations-

Hb 11.6 gm/dl

WBC 6380/cumm

Platelet 6.13 lakhs/cumm

Examination- PR Examination

Circumferential protruding mass from anal region noted 10cm in length

Colour of protruding mass pink

No any bleeding or mucoid discharge noted

Not reducible

DRE

Anal sphincter tone lax

Final Diagnosis-

Physical examination shows Grade IV rectal prolapse

Treatment-

After diagnosing, intravenously administered antibiotics- Inj Cefuroxime 1.5 gm IV BD, Inj Metronidazole 500mg IV TDS , Inj Pantoprazole 40 mg IV BD

Abdominal Rectopexy

position – Lithotomy

Anaesthesia - General Anaesthesia

Procedure

Under AAP painting draping done

Midline below umbilical incision taken . Layerwise dissection done . Peritoneum opened colon is pulled small bowel pushed backward. Then dissection done at sacral promontory and peritoneum over rectum the mesh is fixed to sacral promontory and presacral fascia. Peritoneal fold and rectal peritoneum is sutured with vicryl 2.0. Redundant sigmoid colon fixed to lateral abdominal wall with vicryl 2.0 . Haemostasis achieved. Layerwise closure done . Dressing with Betadine done.Procedure went uneventful. Thiersch stich taken with Ethilon 2.0. Pt shifted to ward in good condition

Fig 1- Preoperative Image.



Fig 2 - Dissection

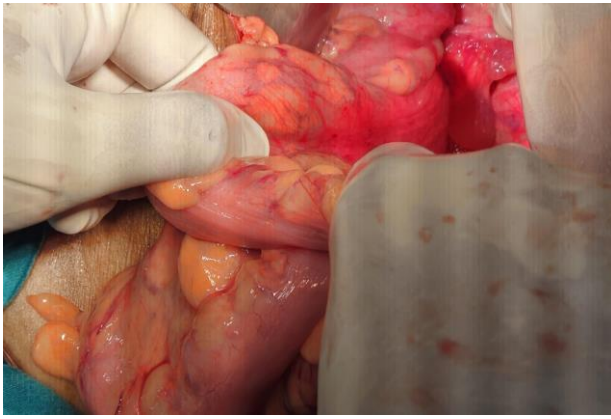


Fig 3 - Intra Operative Images



Fig 4- post operative results



On POD - 5 Dressing of Operative site done.

On POD - 12 All skin sutures removed.

Patient was discharged from hospital .

Outcome and Follow up-

The patient experienced no complications during the early postoperative period. Six days after surgery the patient recovered and discharged. The patient was able to carry out daily activities without any post operative complications.

Discussion-

Grade IV rectal prolapse represents the most advanced stage of Rectal prolapse, characterized by complete, full-thickness protrusion of the rectal wall through the anal canal that is irreducible or only reducible with difficulty. It is commonly associated with chronic pelvic floor dysfunction, redundancy of the rectosigmoid, deep pouch of Douglas, and attenuation of supporting ligaments. Patients typically present with fecal incontinence, constipation, mucous discharge, bleeding, and a significant impact on quality of life. The condition is frequently seen in elderly females but can also occur in younger individuals with underlying predisposing factors such as chronic straining or neurological disorders.

The pathophysiology involves a combination of sliding herniation and intussusception mechanisms. Progressive weakening of pelvic support structures leads to circumferential descent of the rectum. In Grade IV disease, prolonged exposure results in edema, ulceration, and risk of incarceration or strangulation, necessitating definitive surgical management.

Surgical correction remains the gold standard for treatment, with procedures broadly categorized into abdominal and perineal approaches. Among abdominal techniques, Posterior rectopexy is widely accepted due to its effectiveness in restoring anatomy and reducing recurrence. It involves mobilization of the rectum posteriorly and fixation to the sacrum, thereby correcting redundancy and preventing further descent.

Posterior rectopexy can be performed via open or laparoscopic approaches, with the latter gaining preference due to reduced postoperative pain, shorter hospital stay, and faster recovery. During the procedure, dissection is carried out in the avascular plane posterior to the rectum, preserving autonomic nerves to minimize postoperative complications such as constipation and sexual dysfunction. The rectum is then elevated and fixed to the sacral promontory using sutures or mesh. Mesh rectopexy provides additional reinforcement but carries a small risk of infection or erosion.

The functional outcomes following posterior rectopexy are generally favorable. There is significant improvement in continence due to restoration of anorectal angle and sphincter function. However, postoperative constipation may persist or worsen in some patients, particularly if extensive lateral dissection is performed. To address this, modifications such as nerve-sparing techniques and limited mobilization have been advocated.

When compared to perineal procedures like Delorme procedure and Altemeier procedure, posterior rectopexy demonstrates lower recurrence rates but may be associated with higher operative risk in frail or elderly patients. Therefore, patient selection is crucial. Abdominal approaches are preferred in younger, fit individuals, whereas perineal approaches are reserved for high-risk surgical candidates.

Recent advances include laparoscopic and robotic-assisted rectopexy, which enhance visualization and precision. Additionally, ventral mesh rectopexy has gained popularity as it avoids posterior dissection and may reduce postoperative constipation, although long-term comparative data are still evolving.

In conclusion, Grade IV rectal prolapse is a severe debilitating condition requiring surgical intervention. Posterior rectopexy remains a cornerstone procedure, offering durable anatomical correction and functional improvement. Careful patient selection, meticulous surgical technique, and consideration of procedure-specific advantages are essential to optimize outcomes and minimize complications.

Conclusion-

Posterior rectopexy remains a well-established and effective surgical procedure for the management of full-thickness rectal prolapse, particularly advanced (grade IV) cases. By restoring normal rectal anatomy through mobilization and fixation of the rectum to the sacrum, it addresses the fundamental pathophysiology of prolapse and significantly reduces recurrence rates.

The procedure offers good functional outcomes, with improvement in symptoms such as fecal incontinence due to restoration of anorectal angle and pelvic floor support. However, it may be associated with postoperative constipation, especially in patients with pre-existing colonic dysmotility or extensive rectal mobilization.

With the advent of minimally invasive techniques, including laparoscopic and robotic approaches, posterior rectopexy has become safer, with reduced postoperative pain, shorter hospital stay, and faster recovery while maintaining comparable efficacy to open surgery.

Overall, posterior rectopexy is a reliable and durable option for rectal prolapse, and careful patient selection, appropriate surgical technique, and attention to functional outcomes are key to optimizing results.

REFERENCES:-

1.Sabiston Textbook of Surgery

Sabiston Textbook of Surgery

Townsend CM, Beauchamp RD, Evers BM, Mattox KL.

Sabiston Textbook of Surgery, 18th ed. Elsevier.

Section on rectal prolapse and rectopexy (Vol. 2, around p. 1418). ◆

PubMed

2.Operative Surgery of the Colon, Rectum and Anus

Operative Surgery of the Colon, Rectum and Anus

Williams JG, Madoff RD.

Chapter: Abdominal Rectopexy (Open), CRC Press, 2015, pp. 715–719. ◆

Experts@MCCleveland

3.Cleveland Clinic Colorectal Case Studies (Springer)

Cleveland Clinic Colorectal Case Studies

Wu JS. Rectal Prolapse – Rectopexy, Springer, 2025.

Covers posterior mobilization and fixation to sacral promontory. ◆

Springer

4.NCBI Bookshelf – Surgical Treatment of Rectal Prolapse

Surgical Treatment of Rectal Prolapse

Includes posterior (Wells) rectopexy, suture rectopexy, and abdominal approaches.

Describes posterior mobilization and sacral fixation techniques. ◆