## Perineal Proctosigmoidectomy (Altemeier Procedure) with Anterior Levatorplasty for Rectal Prolapse

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LINK https://youtu.be/XzL8rDaQR2U

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**Introduction:** Rectal prolapse is a rare condition that can be disabling. It typically affects elderly patients, often women, who have significant pelvic floor weakness.1 Functional disorders such as constipation and/or anal incontinence are often associated with this condition. Surgical treatment of rectal prolapse involves abdominal 2 and perineal approaches, and various tactical options, including resection, fixation with sutures or mesh, and a combination of both methods. Among the perineal approaches, perineal proctosigmoidectomy (also known as the Altemeier procedure) with anterior levatorplasty (anterior plasty of the levator ani muscle) is distinguished by its simplicity and rapid execution. It has the advantage of being used in elderly and frail patients, as well as in those with recurrent prolapse, and even in cases of incarceration. $^{3,4}$ 

Description of content: We present the case of an 83year-old female patient with a history of two laparotomies (cholecystectomy and hysterectomy) and a complete, reducible, and incoercible rectal prolapse that has been present for one year, accompanied by fecal incontinence. Rectal examination revealed the presence of a significant associated sphincter hypotonia. Vaginal prolapse was ruled out. A colonoscopy did not reveal synchronous colonic pathology. Initially, a laparoscopic approach was undertaken to perform a rectopexy; however, it was abandoned due to multiple and significant visceral adhesions, which would have prolonged and hindered the procedure in an elderly and fragile patient. The patient is then moved to the lithotomy position for the performance of a perineal proctosigmoidectomy (Altemeier), which is initiated with the circumferential section of the rectum 1 cm from the dentate line, continuing until the opening of the cul-de-sac of Douglas is achieved. The rectum and sigmoid colon are then tractioned until maximum exteriorization is achieved, and the mesosigmoid is

sectioned with sealant. An anterior levatorplasty with interrupted non-absorbable sutures and a coloanal anastomosis with interrupted 3-0 polydioxanone sutures is performed.

The patient had a favorable postoperative outcome and was discharged on the sixth postoperative day.

A three-month follow-up period is insufficient to evaluate medium-term and long-term results, including the potential for recurrence. However, from a functional standpoint, she manifests regular bowel movements and maintains adequate anal continence.

Conclusiones: Despite the resurgence of the abdominal approach with minimally invasive surgery, the Altemeier procedure remains a viable option for patients who are elderly, frail, and/or have multiple visceral adhesions, as is the case in this report. This approach has been shown to reduce operative time and yield satisfactory long-term outcomes regarding recurrence, comparable to those observed with other surgical interventions. It has been demonstrated that associated levator plication can mitigate the functional sequelae (incontinence) and avoid early complications (perineal evisceration).

## REFERENCES

- McNevin MS. Evaluation and Management of Rectal Prolapse. Surg Clin North Am. 2024;104(3):557-64.
- Chinelli J, Ximenez V, Brandolino S, Rodriguez G. Rectopexia laparoscópica con técnica de Orr-Loygue para el tratamiento del prolapso rectal. Rev Argent Coloproct. 2023;34(3):32.
- Bordeianou L, Paquette I, Johnson E, Holubar SD, Gaertner W, Feingold DL, et al. Clinical Practice Guidelines for the Treatment of Rectal Prolapse. Dis Colon Rectum. 2017;60(11):1121-31.
- Emile SH, Elfeki H, Shalaby M, Sakr A, Sileri P, Wexner SD. Perineal Resectional Procedures for the Treatment of Complete Rectal Prolapse: A Systematic Review of the Literature. Int J Surg. 2017;46:146-54.

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