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Perineal Rectosigmoidectomy Associated with Low Colorectal Anastomosis for Complete Rectal Prolapse Correction – Altemeier's Procedure

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Authors' contributions

This work was carried out in collaboration among all authors. Authors MG and AM designed the study, managed the analyses of the patient case and wrote the case study. Authors MG and SDFB managed the literature searches. All authors read and approved the final manuscript.

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Case Study

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ABSTRACT

Introduction: Rectal prolapse constitutes in rectal protrusion through anal orifice. It's more frequent in elderly women and the correction is exclusively surgical and fundamental, given the condition's social relevance. We intend to describe a perineal rectosigmoidectomy (Altemeier) for correction of prolapse in multi-morbidity elder patient.
Case Report: Female patient, 78 years old, evaluated by proctology ward of CHSBC. She Came in with complaint of anal region bulge for past 2 years. Proctological examination showed 15 cm rectal procidentia Rectal prolapse's diagnosis came from colonoscopy. A perineal rectosigmoidectomy associated with colorectal anastomosis was done (Altemeier's Procedure). There was appropriate postoperative evolution, discharge with good wound healing and ambulatorial follow up with good general healing.
Discussion: Rectal prolapse is a result of anatomical alterations due to factors such as age and multiparity. Clinical presentation: abdominal discomfort, constipation, feces and gases release. It leads to life quality loss, thus surgical interventions become essential. Corrective surgeries seek to give back fecal continence. Currently, procedures branch out into abdominal and perineal. Altemeier consists in complete rectal removal via perineum. It's appropriate for high surgical risk elders, since it has the lowest complications rate.

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Keywords: Rectal prolapse; anal canal; anastomosis; surgical; elder.

1. INTRODUCTION

Rectal prolapse constitutes in rectal protrusion to the external environment through the anal orifice. Since in total prolapse the segment takes on a conical shape with the exteriorization of all rectal layers [1]. It has an incidence of 2.5 / 100,000, and more frequent in elderly women, being related to the multiparity and weakening of the pelvic floor of these patients [2].

It is shown as an exclusively surgical correction pathology, which performance is fundamental due to the social relevance that this disease has, which can generate great damage in the patient's quality of life, restricting her autonomy for daily activities and impairing the social experience due to the manifestations that prolapse generates, such as the constant loss of gas and feces through the half-open anus [2]. For surgical correction, the procedures are divided into abdominal and perineal interventions (focus of this report), always seeking to restore normal Zanatomy and have low morbidity and mortality [3].

In this report, we seek to describe the operative technique of Altemeier perineal rectosigmoidectomy, used for the correction of total rectal prolapse present in an elderly patient with multi-morbidities, as well as to present the advantages and objectives of this technique for this patient profile, which are the most affected by this pathological condition.

2. CASE REPORT

Female patient, LRS, 78 years old, evaluated by the Proctology team at the Centro Hospitalar Municipal de São Bernardo do Campo. She was referred with a bulging complaint in an irreducible anal region 6 months ago and referred the presence of the condition since 2 years ago, being reducible at the beginning. She had a personal history of femur surgery 6 months ago, after which she reported worsening of the bulging condition, which became irreducible. He also referred to constipation with the need to use Lactulose oral solution (3 ml per day) and bowel habits 2 to 3 times a week, with a pasty shape of the feces. She denied incomplete emptying, evacuation effort, abdominal pain, anal bleeding, anal incontinence, tenesmus and pull.

Upon proctological physical examination, static inspection revealed a total rectum procidence of 15 to 20 cm (Fig. 1). On dynamic inspection, severe hypotonia was found, as well as digital rectal examination, which was painless and with smooth mucosa. The mucosa was smooth and hyperemic when performing anuscopy. The diagnostic hypothesis was total procidence of the rectum.

Fig. 1. Total rectum procidence

A colonoscopy was performed, in which rectal prolapse was diagnosed, as well as uncomplicated diverticular disease of sigmoid colon. Colonic polyps were also found, for which polypectomies (low-grade tubular adenomas) were performed. For the correction of the procidence we chose to perform an endoanal perineal rectosigmoidectomy for this patient associated with an anastomosis of the anal neck (Altemeier), as the rectal prolapse was very large (15 cm).

The patient underwent surgery on April 16, 2019, and the Altemeier Surgical Technique was performed, in which the prolapse was performed with Allis forceps, a circular incision in the rectal mucosa 1-2 cm above the pectinate line and all layers of the prolapsed rectum were dissected until reaching the mesocolon (Fig. 1), which was ligated while the portion adhered to the pelvis was pulled. The traction was performed until the point where the resistance was found, since from this point the ligaments and musculature were healthier. Finally, we resected the lowered portion, removing an anatomical piece of approximately 20 cm (Fig. 2) and a low end-to-end colorectal anastomosis (just above the pectineal line) was performed manually (Fig. 3).

Fig. 2. Resection of rectal prolapse

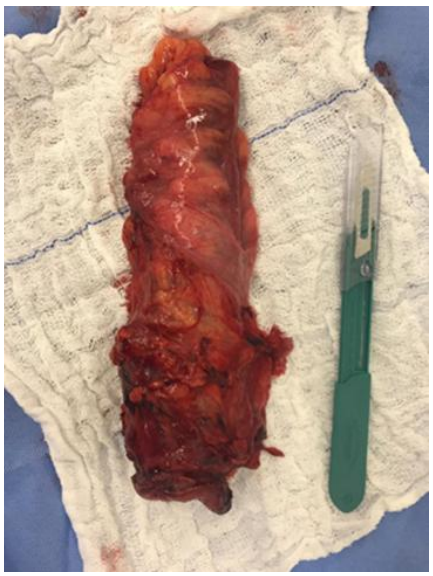

Fig. 3. Anatomical piece (resected prolapse) - 20 cm

The surgery occurred without complications and the patient had a good postoperative evolution, without any complications. A delayed bladder catheter was maintained until the fifth postoperative day and rocefin was administered with metronidazole and clexane for 7 days. The patient was discharged on the fifth postoperative day in good general condition, with a good-looking surgical wound, with well-coordinated edges and without phlogosis. She was advised about signs and symptoms of alarm and outpatient return.

On the tenth postoperative day, the patient presented to the clinic without complaints, in good general condition, with a good-looking surgical wound, pink mucous membranes at the edges, without signs of necrosis or bulging in the perianal region. On the fourteenth day, there was a last follow-up appointment, maintaining good general condition and the surgical wound. The conclusion of the perineal rectosigmoidectomy was of good evolution, with a well coaptized anastomosis, with no dehiscence points and no secretion output.

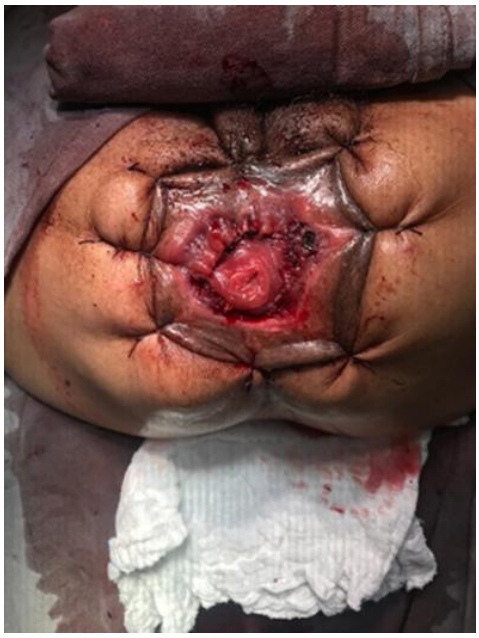

Fig. 4. Low rectal anal anastomosis

3. DISCUSSION

The medical literature shows that the formation of rectal prolapse presents the interaction of different factors such as advanced age and multiparity (present in the case described), pelvic or perineum injury and defecation disorders such as chronic constipation associated with evacuation effort[1]. Such factors result in the anatomical changes present in the prolapse, such as hypotonia of the pelvic floor due to excessive effort, weakness of the anal sphincters and looseness of the ligaments supporting the rectum [4].

Consequently, rectal protrusion is generated, resulting in prolapse and its characteristic clinic with abdominal discomfort, incomplete evacuation, anal mucus secretion, feces and gas release. Consequently, such symptoms greatly impair patients' quality of life and make it essential. the correct medical surgical intervention [3].

Over the years, there has been an evolution in surgical descriptions related to rectal prolapse correction, always looking for the ideal of reestablishing normal anatomy and returning fecal continence to the patient, correcting evacuation disorders [3]. Currently the procedures are divided into abdominal and perineal, and the Altemeier Technique, initially described by Mikulicz and adapted by Altemeir in 1965, is part of the surgeries with perineal access, consisting of complete removal of the rectum via perineal and posterior colorectal anastomosis [5].

The surgery using the Altemeier Technique shows excellent results with almost zero postoperative morbidity and mortality, with a very low risk of anastomotic release, being a procedure preferably indicated for elderly people with high surgical risk, since performing the correction of the prolapse by the Altemeier technique. There is less risk of postoperative complications, generating a greater chance of recovery without complications [6].

However, despite these advantages, the Altemeier Technique has a higher rate of prolapse recurrence after surgery compared to abdominal techniques, among which the Ripstein rectum sacropromontofixation is emphasized, with suture or use of abdominal screens [5].

4. CONCLUSION

Therefore, given the impact that the rectal prolapse clinic generates on its patients, being a disease of high disability, the correct surgical choice, appropriate to the patient's comorbidities, it is essential for the patient to have the resolution of his disease and the better quality of life, resuming its functional autonomy.

CONSENT

As per international standard or university standard, patient's consent has been collected and preserved by the authors.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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