

CASE REPORT

Incarcerated Rectal Prolapse - how to treat this acute surgical condition?

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ABSTRACT

The standard surgical procedure for rectal prolapse is laparoscopic and robotic-assisted ventral rectopexy using prolene mesh. However, very rarely there may be patients with incarcerated rectal prolapse, a condition which is urgent and presents a challenge to surgeons.

We present a case of a large incarcerated rectal prolapse treated using the open method, by posterior rectopexy, using prolene mesh.

Keywords: rectal prolapse, ventral rectopexy, posterior, mesh.

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Introduction

Rectal prolapse is a condition which always requires surgical intervention. The standard surgical procedure for rectal prolapse today is laparoscopic and robotic-assisted ventral rectopexy using prolene mesh¹. However, very rarely there may be patients with incarcerated rectal prolapse, a condition which is urgent and presents a challenge to surgeons.

Case Report

A seventy-year-old woman was admitted as an emergency to the Clinic for Surgery due to incarcerated rectal prolapse (Figure 1). After application of a spasmolytic, manual reposition was attempted, but without success and it was decided to perform emergency surgery. Explorative laparotomy was performed and, with synchronous traction of the rectosigmoid bowel and gentle external pressure on the incarcerated part of the bowel, manual repositioning was achieved.



Figure 1. The incarcerated rectal prolapse in the form of a ball sized 20 x 20 cm.

After that, posterior rectopexy, according to Notaras, was performed, with placement of prolene mesh, 3 x 2 cm, which was fixed between the posterior rectal wall and the sacral promontory, with a 2-0 prolene suture (Figure 2).

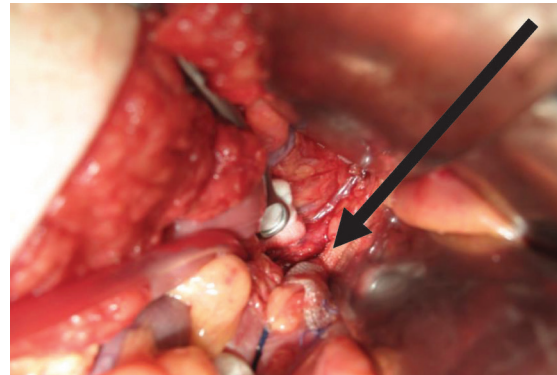


Figure 2. The mesh placed on the posterior rectal wall fixed to the sacral promontory.

During her time in hospital the patient was stable, on the second day after surgery she began liquid food, and on the seventh day she was discharged.

Discussion

The precise cause and mechanism of rectal prolapse has not been established. Pregnancy, obesity, injuries to the perineum, chronic constipation or other conditions result in an increase in intraabdominal pressure and lead to rectal prolapse. Anatomical variations such as a deep cul-de-sac of Douglas or dolichosygma may also be the cause². Preoperative Preparation in elective patients includes a physical examination, colonoscopy, anoscopy, anal manometry and defecography³.

Non-surgical treatment includes using supplements rich in fibre, fibre intake, which are useful in minor (first or second degree) rectal prolapse and may help with constipation or incontinence before surgery in patients with complete prolapse.

In practice there are various surgical methods used to resolve rectal prolapse. Transabdominal

procedures were previously the method of choice in all healthy patients, regardless of their age. Perineal procedures (such as ligation, mucosal excision) may be performed in patients with total prolapse who are not candidates for the transabdominal approach and those with second or third degree prolapse⁴.

Laparoscopic ventral rectopexy is now the standard and has a relapse rate of less than 5%, similar to posterior rectopexy. The advantages of the laparoscopic approach are lower morbidity and shorter hospital stay, as well as the reduced likelihood of re-occurrence of constipation⁵. A meta analysis comparing laparoscopic rectopexy with the open method showed no statistical differences in relapse, incontinence or constipation between the two methods.

Ventral rectopexy using prolene mesh is now the accepted and standardized for treatment of prolapse of pelvic organs. The combined benefits of the laparoscopic approach and ventral rectopexy have made the procedure safe and effective, with minimal post-operative functional difficulties^{6,7}. During ventral rectopexy, fixation of the posterior vaginal fornices to the lowest point of the mesh additionally strengthens the pelvic floor. Today robot-assisted ventral rectopexy is gradually becoming the standard.

However, the question remains of surgical treatment of incarcerated rectal prolapse. Several surgical approaches are possible, but there is no consensus regarding which approach is best for the patient, because this depends on the patient's condition, the occurrence of relapse, bowel function and the surgical risk itself. Cases have been described of incarcerated rectal prolapse which were treated by abdominal laparotomy then resection of the sigmoid colon and posterior rectopexy using prolene mesh fixed to the sacrum⁸.

Experience has shown that in irreducible rectal prolapse, surgery should be performed in the shortest possible time⁹.

When considering treatment, the discussion includes observation of the condition of the congested incarcerated bowel, and perineal proctosigmoidectomy is proposed after determining the risk of dehiscence or loosening of the anastomotic line¹⁰.

This case shows that open rectopexy remains the treatment choice in cases of incarcerated prolapse which cannot be resolved by manual manipulation, and we believe that it is the method of choice for resolving this condition.

Conflict of interests

The authors have no relevant financial or non-financial interests to disclose.

Patient Consent Form: The participant was informed about subject of the study.

Author's Contributions: Samir Delibegovic: Data curation, Visualization, Investigation, Writing. Haris Kuralic: Data curation, writing.

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