



Erosion of the Mesh Prosthesis into the Rectum

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Abstract

Introduction: Currently, sacrocolpopexy is a popular method of surgical correction of pelvic prolapse.

Case Materials and Methods: This article describes a clinical case of erosion of mesh prosthesis into the rectum in a patient after sacrocolpopexy. This study has received approval of Ethics Institutional Review Board.

Discussion: The diagnostic tests performed to identify the fistulous course with subsequent removal of the mesh prosthesis and the postoperative period is described in detail. Computer tomography with contrast in this case is the only method in assessing the vaginal stump in relation to neighboring pelvic organs, the size of the rectal lesion and the presence of an abscess or fistula. Surgical treatment is the only possible solution. Pelvic surgeons should be aware of possible mesh erosion in neighboring organs, even considering that complications can be rare.

Result and conclusion: A differentiated approach to the choice of surgical treatment allows minimizing both operational and postoperative complications. This surgical technique demonstrates erosion of the mesh prosthesis in the rectum and removal of the rectal mesh with transrectal access.

Keywords: Erosion of the mesh; Sacrocolpopexy; Pelvic prolapse

Introduction

To date, there is no consensus on the use of mesh prosthesis in gynecology for the correction of genital prolapse. The concept of surgical intervention is to “replace” the failure of the pelvic fascia with mesh prosthesis, with the creation of a reliable framework for the pelvic organs [1]. The search for surgical correction methods for patients with genital prolapse does not stop. It is well known that every third gynecological operation is performed specifically for the prolapse of internal genital organs. Today, there are more than a hundred methods of treating this pathology, but the recurrence rate of the disease after its surgical correction reaches 33-40% [2,3]. Today, sacrocolpopexy is a popular method for correcting pelvic prolapse due to the strong fixation of the vaginal dome to the structures of the pelvis [4]. However, despite the evidence base for positive results, there is evidence of complications after using mesh prostheses in the literature. One of the most difficult complications is when erosion occurs in neighboring organs - the bladder and rectum [5]. There is currently no consensus on the optimal surgical treatment of these complications. Younan HC et. al carried out a systematic review of 14 cases of erosion of the mesh into the rectum, the average duration from installation to complication ranged from 59.2 months to 240 months, with this the authors note the lack of a single point of view regarding correction [6]. In this clinical case, erosion of the mesh prosthesis into the rectum after sacrocolpopexy occurred.

Case Presentation

Patient B. was admitted to the BSMU clinic urgently with complaints of pus discharge from the genital tract, 38.5-39°C fever for 3 days, pain in the lower back and sacrum, in the lower abdomen, gas exhaustion through the vagina. From the history in 2011, left mastectomy for C-r of the mammary gland. In 2013, a laparotomic hysterectomy was performed with appendages for uterine fibroids. Patient suffered a blood transfusion. In November 2019, sacrocolpopexy was performed as planned in November. Upon admission, the vaginal stump appeared

to be slightly higher, its compaction was determined without clear contours, sensitive to palpation. PR: no obstruction of the rectal ampulla, the mucosa is movable, upon examination, defects are not detected. It was decided to conduct a Computer Tomography (CT) scan (Figure 1): A low location of the rectum, vaginal stump was revealed. The walls of the vaginal stump are thickened, swollen. In the recto sigmoid part of the intestine, a fistulous passage is determined, ending in the pre sacral region, with a length of 20 mm. From the upper part of the vaginal stump, a fistulous passage is determined that opens in the recto sigmoid section of the intestine. Pelvic fiber is compacted. The bowel loops are dilated.

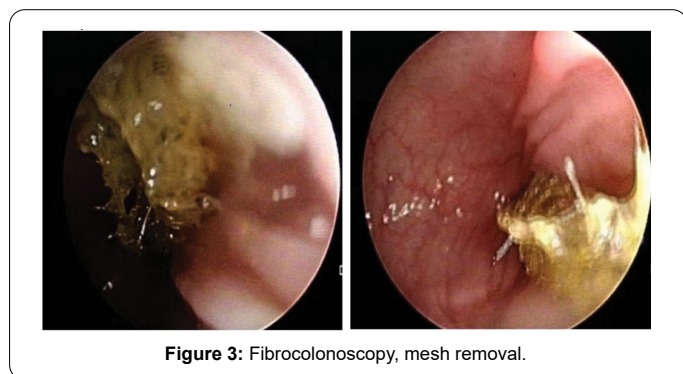
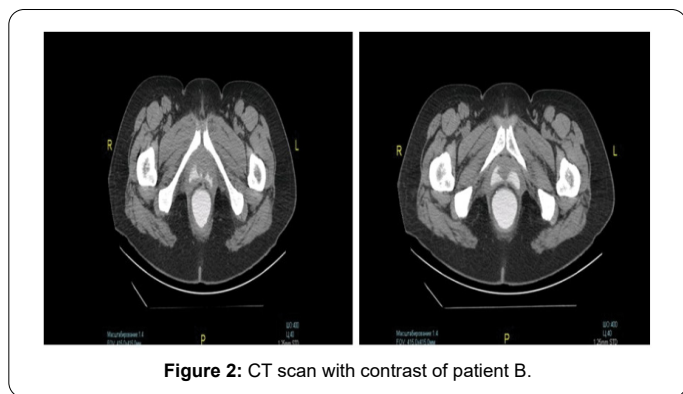
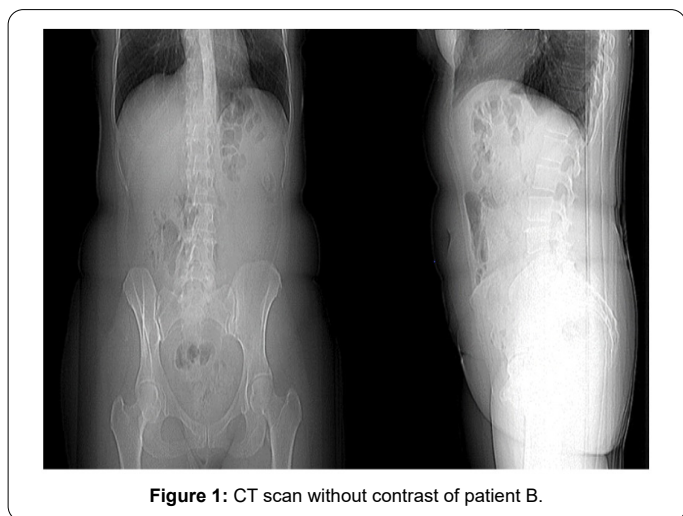
CT with contrast (Figure 2): The ampulla part of the rectum is filled with a contrast agent with dimensions 53 × 58 mm. High-density (up to 375 HU) inclusions are visualized in the walls of the rectum. The pathological flow of contrast medium from the recto sigmoid colon is determined into the vaginal stump through the fistulous passage with a diameter of 5 to 11 mm and a length of up to 25 mm. Along the upper contour, the recto sigmoid part of the colon determines hyperplastic superposition with a density of up to 23 HU, which can be traced up to the level of L5-S1, with no signs of leakage of contrast medium. Later it was decided to conduct a colonoscopy which is presented in (Figure 3). Before the manipulation, the patient followed a two-day diet,

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preoperative bowel cleansing was performed, which avoided potential contamination during the manipulation. A 10 cm long polypropylene mesh was visualized in the rectal ampulla, located along the right side wall, perforation holes in the intestinal mucosa were clearly defined, and subsequently the mesh was removed in stages in the rectal lumen, followed by the external removal.

Discussion

In our case, due to the small perforation of the rectum, we decided to perform transanal mesh removal. Given that the perforation hole was located on the right side wall, this defect did not require closure. After removal, a gas vent tube was installed in the patient for 24 hours. In the postoperative period, the patient followed a salt-free diet, which provided for the complete exclusion of meat, fruits and vegetables from the diet. The last meal took place in the early evening and consisted only of fermented milk products and water. After sacrocolpopexy, close attention should be paid to bowel function. Also, from our point of view, a regular physical examination of the vagina and rectum in the postoperative period should be carried out. Unfortunately, in our cases, during rectal examination, we did not find a mesh prosthesis in the lumen of the rectum. Computer tomography with contrast in this case is the only method in assessing the vaginal stump in relation to neighboring pelvic organs, the size of the rectal lesion and the presence of an abscess or fistula. Surgical treatment is the only possible solution. Pelvic surgeons should be aware of possible mesh erosion in neighboring organs, even considering that complications can be rare. Today, we are faced with the task of finding specific gynecological and rectal signs. On the basis of the BSMU Clinic, a static recording of all patients after mesh prostheses is carried out, where once every three months after surgery for a year, patients are invited for examination. The main point is the assessment of the quality of life and the condition of neighboring organs. Most importantly, patients undergoing mesh repair procedures should be warned of the risks of surgery, including the possibility of several subsequent interferences.

Result and Conclusion

Surgical correction of patients with genital prolapse should be carried out in specialized centers by trained specialists who are familiar with all methods of surgical treatment of this complex pathology. A differentiated approach to the choice of surgical treatment allows minimizing both operational and postoperative complications. This surgical technique demonstrates erosion of the mesh prosthesis in the rectum and removal of the rectal mesh with transrectal access.

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