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PROCEEDINGS

LAPAROSCOPIC TREATMENT OF HIGH SIGMOIDOVAGINAL FISTULA. CASE REPORT

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ABSTRACT

Rectovaginal and/or colovaginal fistulas are difficult-to-treat conditions that can cause vaginitis, abnormal flatulence through the vagina, skin excoriations, and more. Depending on the type of fistula, they can be rectovaginal, anovaginal, colovaginal, enterovaginal, vesicovaginal, ureterovaginal, urethrovaginal, with the most common being vesicovaginal and rectovaginal. In most cases, these conditions present a challenge and require a comprehensive diagnostic approach and treatment. We present a clinical case of a 73-year-old patient manifesting with flatulence through the vagina. During hospitalization, a high sigmoidovaginal fistula was diagnosed. The patient has a history of hysterectomy 17 years ago, due to myomatous uterus. Subsequently, she had three operations for postoperative hernia, two of which involved the placement of synthetic mesh. During the diagnostic plan, diverticulosis of the colon was also detected. This was observed as probable etiological cause for the formation of the fistula. The patient had comorbidities: arterial hypertension and severe obesity (Grade III). A laparoscopic disconnection of the fistula was performed, followed by laparoscopic suturing of the vagina and sigmoid colon, with subsequent omentoplasty. After an uncomplicated postoperative period, the patient was discharged on the 5th postoperative day, fully mobilized, with restored gas and feculent passage. There are few cases of high sigmoidoaginal fistulas described in the medical literature. The treatment in such patients is still unclear and subject to discussion. With the advancement of minimally invasive techniques in medicine, the laparoscopic surgical approach is a suitable option for treatment, but long-term follow-up and in-depth analyses are necessary.

Keywords: *sigmoidovaginal fistula, laparoscopic surgery*

INTRODUCTION

Fistula is an abnormal communication between two epithelialized surfaces (1). Colovaginal fistulas are rare; however, they can lead to serious emotional, social, and financial consequences. This type of pathology is most commonly seen in women who have had a total hysterectomy (2). Surgical treatment for fistulas between the vagina and the gastrointestinal tract is considered the most appropriate method, with sigmoidovaginal fistulas being the third most frequent. The most suitable surgical approach is still not clear, but the two-stage one (Hartmann's resection or resection with formation of a protective stoma) is considered safe and effective (3). The one-stage alternative (single-step resection with anastomosis or suture with omentoplasty) should also not be dismissed. The current clinical case presents a patient with a diagnosed high sigmoidovaginal fistula after total hysterectomy, after several episodes of acute diverticulitis, who underwent a one-stage laparoscopic minimally invasive surgical intervention, unlike similar cases described in the past.

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CASE REPORT

The case involves a 73-year-old patient admitted to the clinic with complaints of genital bleeding followed by fecal leakage from the vagina. There were no complaints of abdominal pain. The patient had undergone laparohysterectomy in 1995, followed by three surgeries for postoperative hernia, two of which involved placement of synthetic mesh. Comorbidities include past episodes of acute diverticulitis, grade III obesity, and arterial hypertension. During hospitalization, the patient underwent fibrocolonoscopy, revealing a block and fixation of the sigmoid colon, likely due to diverticula, which were visible up to that point. The mucosa appeared intact. A fistulous tract was not visible, but air insufflation from the device was visibly exiting through the vagina. Due to technical reasons, a CT/MRI of the abdomen and small pelvis with contrast could not be performed. An x-ray barium enema procedure showed an obliquely situated fistulous tract originating in the distal sigmoid colon, about 20 cm from the anal orifice, oriented obliquely, caudally, and medially (Fig. 1). Following a clinical consultation, consultation with a cardiologist and anesthesiologist, and assessment of respiratory status, a decision was made to perform a one-stage laparoscopic intervention. A pneumoperitoneum was created using a Veress needle up to 12 mmHg at the Palmer point in the left subcostal region. Adhesiolysis in the abdominal cavity was done. The patient was repositioned in the Trendelenburg position, and working and optical trocars were inserted (Fig. 2). Following careful debridement in the small pelvis, a fistulous tract between the anterior wall of the sigmoid colon and the fundus of the vagina was encountered. The fistula was disconnected using Ligasure (chondro-fibrous density of tissues). The size of the fistulous opening was about 2 cm in diameter (Fig. 3). Based on the findings, a decision was made to suture the vagina and sigmoid colon, with rotation of omental flap (omentoplasty). The postoperative period progressed smoothly without any complications. Gas passage was restored on the 3rd postoperative day. Early mobilization, with verticalization on the 2nd postoperative day, was achieved. Drains were removed on the 5th postoperative day, and the patient was discharged in an improved condition.

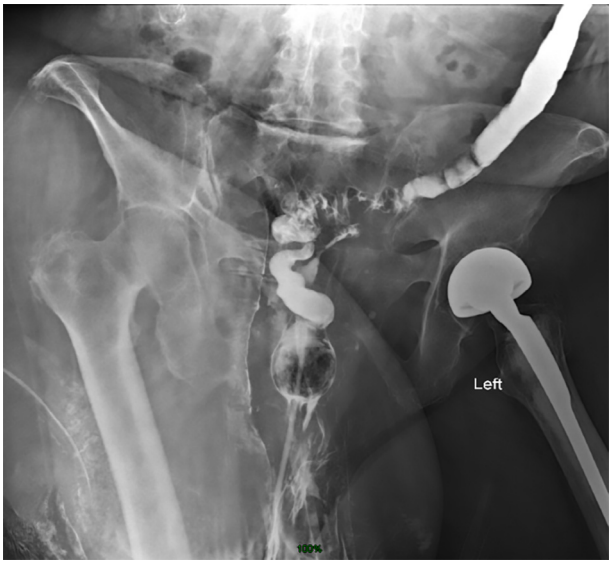

Fig. 1. X-ray barium enema.

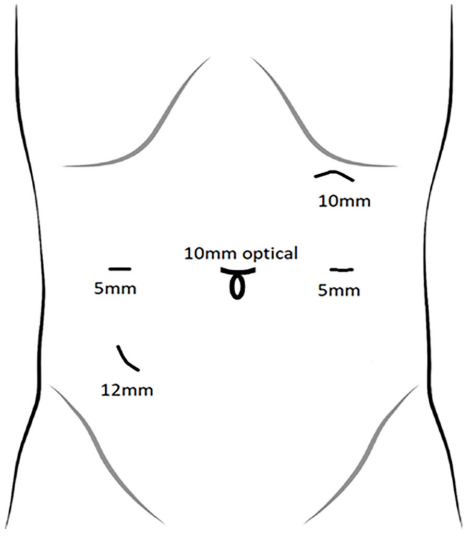

Fig. 2. Trocar placement.

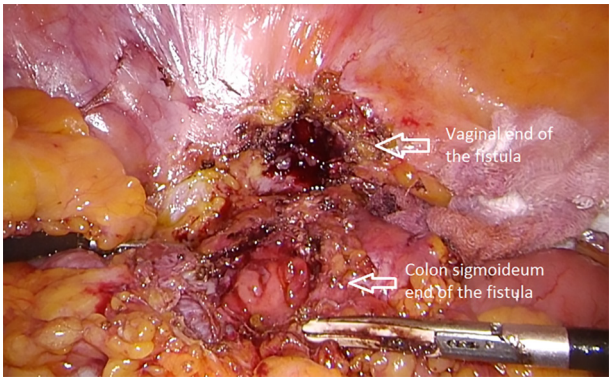

Fig. 3. Disconnection of the fistula.

DISCUSSION

Most commonly, colovaginal fistulas occur in women who have undergone hysterectomy. Those caused by radiation usually involve the distal part of the sigmoid colon and rectum, and their prognosis is significantly affected by the exclusion of recurrence from the primary process (5). Fistulas of malignant origin have a poor prognosis, and resection is not recommended; instead, palliative diversion of the passage (colostomy/ileostomy) or endoluminal stent placement is suggested. Those caused by irritable bowel disease (IBD) are most often associated with Crohn's disease, and resection of the affected segment is recommended (4). A retrospective study of the Department of Colorectal Surgery at Xinhua Hospital of 63 patients with rectovaginal fistulas shows that stoma creation does not increase the chance of fistula closure, but it is necessary in case of unsuccessful initial surgery (1). A similar analysis by J. H. Piekarski and B. A. Jereczek-Fossa of 17 women with post-radiation rectovaginal fistulas following cervical carcinoma, who underwent surgery involving passage diversion only, showed spontaneous closure of the fistula in only 18% of cases within a period of 5, 6, and 9 months (5). F. Hjern and S. M. Goldberg state that the confirmation of the fistula through contrast radiography is successful in about 75% of cases, and operative treatment involving resection and one-step anastomosis is successful in 72% of cases without complications (6). With the advancement of laparoscopic surgery, it has become a preferred method due to the shorter hospital stay and quicker patient mobilization. A retrospective analysis by Jessica Martinolich and D. Ross Croasdale of 111 individuals with proven fistula due to diverticulitis, subjected to laparoscopic sigmoid resection with anastomosis, showed conversion to laparotomy in only 34% of cases due to severe fibrous changes. The operative time was similar, while the postoperative complications fewer and the hospital stay was shorter in the laparoscopic group (7).

CONCLUSION

In conclusion, the approach and methodology for surgical treatment in such patients remain uncertain and subject to discussions. One-stage approaches (Hartmann's resection, anastomosis resection, disonnection with suture and omentoplasty) are good options with good postoperative results. With the advancement of minimally invasive techniques in medicine, the laparoscopic surgical approach is a suitable option for treatment, but long-term follow-up and more in-depth analyses are necessary.

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