CASE REPORT

Spontaneous transvaginal evisceration: a case of recurrence

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SUMMARY

Vaginal evisceration can be defined as a defect in the vaginal wall resulting in prolapse of the intraperitoneal contents. This is a rare complication of hysterectomy, but may result in severe morbidity. We report the case of a postmenopausal woman with transvaginal evisceration of the sigmoid colon 1 year after an abdominal hysterectomy. An exploratory laparotomy was undertaken to reduce the prolapsed sigmoid colon through a combined vaginal-abdominal route. Repair of the defect of the vaginal vault was made using an absorbable running suture. Two years later, the patient presented at the emergency department with a transvaginal evisceration of the omentum. An exclusively vaginal approach was then chosen to repair the smaller vaginal defect and vaginal cuff was closed using non-absorbable sutures. As two different surgical approaches were used in this patient, a discussion of the different treatment options and also of the principles of prevention of vaginal cuff dehiscence is provided.

laparotomy was performed under general anaesthesia. The eviscerated sigmoid colon was successfully repositioned using a bimanual approach, and neither perforation, ischaemia nor inflammation was observed. Vaginal cuff dehiscence measured 5 cm in length and there was no evidence of necrotic tissue. Cuff repair was performed with an absorbable running suture (polyglactin 2-0), suspending it bilaterally to the round ligament remnants ([figure 2](#)).

Patient's recovery was uneventful and she was discharged from the hospital on the 5th postoperative day.

Two years later, the patient experienced a sudden evisceration of omentum through the vagina. She was taken to the operating room for an emergent repair. A vaginal approach was chosen to reduce and repair the evisceration. The vaginal cuff was closed with non-absorbable sutures (polydioxanone 2-0).

BACKGROUND

Vaginal cuff dehiscence is a rare complication of gynaecological surgery and its recurrence is even less frequent.

CASE PRESENTATION

A 76-year-old woman presented at the emergency department with a 2 h history of prolapsed sigmoid colon through the vagina, associated with pelvic discomfort and vaginal bleeding. She had previously experienced a sudden pelvic pain and a protruding vaginal mass, while eating. There was history of neither abdominal nor vaginal trauma, and no signs of increased intra-abdominal pressure.

The patient's medical history included hypertension, dyslipidaemia, obesity and an abdominal hysterectomy for benign pathology 1 year earlier with an uneventful recovery.

On admission, clinical examination revealed oedematous but viable sigmoid colon eviscerated through the vagina. Vital signs were normal and there was no active vaginal bleeding. On physical examination, the abdomen was soft, non-tender and painless ([figure 1](#)).

Intravenous prophylactic antibiotic (cefotaxim 2 g), intravenous fluid and analgesics were immediately administered. Gauze pads moistened with a warm saline solution were used to cover the sigmoid colon and the patient was transferred to the operating room.

The patient was positioned in lithotomy and Trendelenburg position and an emergency

OUTCOME AND FOLLOW-UP

The postoperative course was uneventful and she was discharged on the eighth postoperative day. Two years after surgery, the outpatient course has been without any signs of recurrence.

Figure 1 Transvaginal evisceration of sigmoid colon.

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Figure 2 Cuff repair.

DISCUSSION

In 1864, Hyernaux reported the first case of vaginal evisceration.¹ Since then, about 100 cases have been reported in the literature. Vaginal cuff dehiscence after gynaecological procedures is rare, with its reported incidence ranging from 0.032%² to 0.28%.³ The exact incidence is very difficult to obtain but may probably be higher. Recurrent cases are even rarer and therefore their real incidence is difficult to determine. Ramirez and Klemer⁴ found only two cases of recurrent evisceration in a series of 59 vaginal eviscerations published between 1900 and 2001. One case of recurrent vaginal evisceration was also published in 2008.⁵

Several risk factors have been described and there seems to be a strong correlation with age. The main trigger in premenopausal women is vaginal trauma due to sexual intercourse before complete healing, prior surgical trauma or foreign objects. In postmenopausal women, previous vaginal surgery is the principal cause of vaginal evisceration. The hypoestrogenic state observed in postmenopausal women leads to atrophy, devascularisation and foreshortening of the vaginal tissue, facilitating spontaneous rupture. The presence of a pelvic support disorder such as an enterocele may also increase the risk of vaginal cuff dehiscence due to the increased pressure in the vaginal apex.³

There are also other factors that contribute to the weakness of the vaginal apex after surgery: postoperative complications such as infection or haematoma, poor surgical technique, premature resumption of sexual activity after surgery, old age, prior radiation therapy, chronic steroid administration, hyponatraemia, low vitamin levels, malnutrition or any medical condition that impairs wound healing.⁴

Several studies suggest that laparoscopic and robotic hysterectomy is associated with higher incidence of dehiscence compared with other routes of hysterectomy.^{6 7} Another recent study suggests that the route of vaginal cuff closure plays a key

role in the genesis of this complication. It seems that transvaginal colporrhaphy is associated with threefold and ninefold reductions in the incidence of vaginal dehiscence compared with laparoscopic and robotic sutures, respectively.⁸

The distal ileum is the organ most commonly eviscerated, although cases involving the omentum, appendix and fallopian tubes have been reported. To the best of our knowledge, this is the second case report in the literature that describes the sigmoid colon as the eviscerated organ.⁹

The impact on morbidity depends on the eviscerated organ, degree of rupture and duration of evisceration. The typical clinical presentation of vaginal cuff dehiscence is lower abdominal pain, sudden onset of a vaginal protruding mass, and vaginal bleeding or discharge.¹⁰ Signs and symptoms may, however, be more subtle.⁴ Early recognition may help to avoid complications such as intestinal ischaemia and infarction requiring bowel resection.

Vaginal evisceration is a surgical emergency. Once the diagnosis is made, appropriate management is required: (1) haemodynamic stabilisation, (2) fluid therapy, (3) preservation of bowel viability with saline solution moistened gauze pads, (4) early antibiotic therapy and (5) prompt surgical intervention.¹¹ The surgical approach depends on the situation, and if there is any doubt regarding organ viability, an exploratory laparotomy is mandatory.

Surgical approaches may vary according to patients' clinical situation, but all have the same goals: identification of vaginal defect, evaluation of bowel viability, resection of non-viable tissues and repair of vaginal defect. In the reported case, different approaches were chosen in each situation but the goals were the same. An exploratory laparotomy was chosen for the first incidence/initially chosen because the defect was very large and the viability of the sigmoid colon needed to be evaluated. For the recurrence, we adopted an exclusively transvaginal approach due to the smaller defect and less threatening eviscerated organ, the omentum. There is no significant differences in recurrence rates between abdominal and vaginal approaches.⁴

Modification of factors such as hypoestrogenism, repeated vaginal surgeries, pelvic support defects and poor nutritional status, may prevent this complication.

The use of synthetic mesh to reinforce the vaginal apex,¹² and other techniques to prevent enterocoele formation, have been claimed to reduce recurrence. However, when recurrence rates are so low, it may be difficult to know what would be the best surgical approach to each situation. Surgical principles to be taken into account seem to be preservation of the vaginal length, normalisation of the vaginal axis, repair of coexisting pelvic floor defects and improvement of vault support.³ Tailoring the surgical procedure to the patient's condition seems to be of paramount importance.

Learning points

- ▶ Incidence of vaginal cuff dehiscence is likely to increase.
- ▶ Early diagnosis reduces morbidity and mortality.
- ▶ Vaginal cuff dehiscence may be a surgical emergency.
- ▶ Exploratory laparotomy is mandatory if there is threatening of the viability of the eviscerated organ.
- ▶ There is no *gold standard* surgical approach for vaginal cuff repair.

Competing interests None declared.

Patient consent Obtained.

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