

SMALL BOWEL EVISCERATION AFTER VAGINAL VAULT DEHISCENCE FOLLOWING HYSTERECTOMY: A CASE REPORT

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INTRODUCTION

Vaginal vault dehiscence with small bowel evisceration is a rare but serious complication following hysterectomy. It typically presents with acute pelvic pain and protrusion of bowel through the vagina, requiring urgent surgical intervention to prevent bowel ischemia and infection.

CASE REPORT

A 46-year-old woman presented to the emergency department in the early hours with sudden onset of severe lower abdominal pain, which began while straining to pass stool. She described a dull, dragging sensation and reported the sensation of tissue protruding from her vagina. There was no associated vaginal or rectal bleeding, and no urinary, gastrointestinal, or chest symptoms.

Her surgical history included multiple laparoscopic procedures in the past two years—specifically, a left salpingectomy, right tubal cyst excision, and adhesiolysis. Three months earlier, she had undergone a total abdominal hysterectomy with right salpingo-oophorectomy, left oophorectomy, and concurrent abdominoplasty for symptomatic uterine fibroids. Her post-operative course had been uneventful.

She was para 3, all delivered via Caesarean section, and had recently started hormone replacement therapy. She was normally fit and well, with no known drug allergies, a non-smoker, and an occasional alcohol consumer.

Examination Findings and Initial Management



Figure 1. Small bowel eviscerating through vagina

She was initially reviewed by the general surgical team. On examination, she appeared in distress and obvious discomfort. All her vital signs were within normal limits apart from a respiratory rate of 20/min and oxygen saturation of 100% on 2L of oxygen. Her abdominal examination revealed healed scars from the recent surgical procedure. There was a neo-umbilicus with a well-healed circumferential scar encircling the umbilical area. Transverse lower incision scar was extending laterally to the level of mid axillary lines bilaterally without any wound breakdown, discharge or incisional hernia. There was minimal tenderness in the lower abdomen. There was no distention, guarding, rigidity or rebound tenderness noted on abdominal examination. There was seen a prolapsing loop of small bowel through the vagina. The small bowel poop showed active peristalsis, was pink in colour and had a shiny serosal surface. Rectal examination was unremarkable.

The loop of small bowel was protected with a cover of sterile warm saline soaked gauze and preparations were made to take the patient to operating room with ongoing supportive management. Urgent consultation and review by the Gynaecology team was made.

Pre-operatively she had routine blood tests including a full blood count, U&Es, CRP level, Blood group, crossmatch and save, and clotting studies. She received supportive intravenous fluids, analgesia

and antibiotics. She signed a consent form for the surgical procedure and was seen by the anaesthetist.

Intraoperative Management

In the operating room, under general anaesthesia, the patient was put in lithotomy position. The loop of bowel was washed with sterile warm saline and observed for viability and possible injury. After confirming the viability and no injury, the loop was reduced to the peritoneal cavity with gentle manual pressure. Laparoscopic exploration of the peritoneal cavity was carried out. The intra operative findings revealed full thickness dehiscence of vaginal vault seen with an opening, gaping 5cm in size and communicating into the vaginal canal through which the loop of small bowel had prolapsed. There were signs of previous surgical procedure notably scar tissue and necrotic slough along vaginal vault edges. A small amount of serous fluid was seen in the pelvis as well. The vaginal vault dehiscence was repaired using a continuous running suture with V-Loc, closing the defect transversely by approximating the anterior and posterior vaginal walls. A reinforcing suture repair of the vaginal vault was performed transvaginally using Vicryl 1, under laparoscopic guidance. A thorough peritoneal washout was performed, and haemostasis was confirmed prior to closure. The patient received 48 hours of intravenous antibiotics postoperatively and was transferred to the ward, where she had an uneventful recovery.

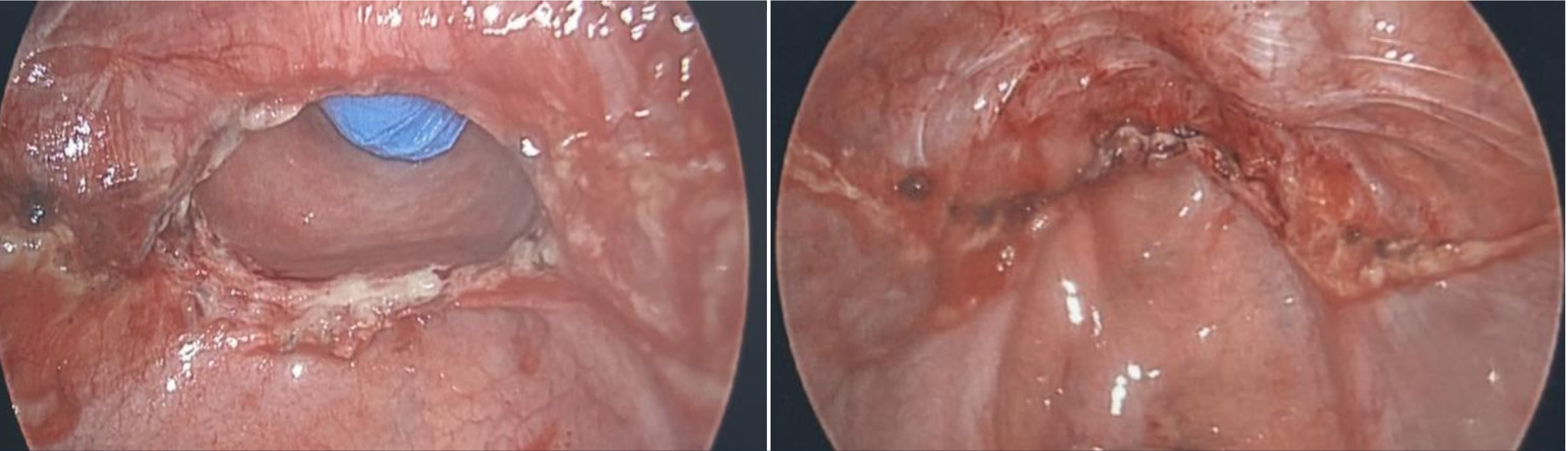


Figure 2. Left – Laparoscopic findings of full thickness dehiscence of vaginal vault. Right – Vaginal vault following surgical repair

Outcome and Follow-Up

She was discharged home 48 hours postoperatively and attended a follow-up clinic appointment two weeks later. She made a good recovery, with wounds healing as expected and no abnormal vaginal discharge or urinary or bowel symptoms.

DISCUSSION

Vaginal cuff dehiscence with small bowel evisceration is an uncommon but potentially life-threatening complication following hysterectomy. It requires immediate recognition and prompt surgical intervention to minimise the risk of bowel ischaemia, perforation, and intra-abdominal infection. Although the exact incidence is unknown, reported rates range from 0.032% to 1.2%¹⁻². Most cases occur within the first three months postoperatively, but delayed presentations—up to several decades after the initial surgery, have been described³. Small bowel evisceration carries significant morbidity and mortality, with mortality rates of up to 5.6% reported in the literature⁴.

The surgical approach used for hysterectomy appears to influence the risk of vaginal cuff dehiscence⁵.

While our patient had undergone an open abdominal hysterectomy, studies have shown a threefold increased risk following laparoscopic or robotic procedures compared to vaginal or open abdominal approaches⁵. This may be attributed to the use of electrosurgery for colpotomy during minimally invasive surgery, which can cause thermal damage and impair tissue healing⁶. Additionally, magnification during laparoscopy may result in smaller suture bites, potentially compromising blood supply to the cuff⁷. Some evidence suggests that bidirectional barbed suture closure may reduce the risk of dehiscence compared to traditional interrupted sutures⁸. The superiority of transvaginal versus endoscopic closure remains inconclusive^{5,9}.

In our case, the patient developed acute lower abdominal pain while attempting to defecate, followed by the sensation of tissue protruding from the vagina. Defecation has been identified as a common precipitating factor for vaginal vault rupture, likely due to increased intra-abdominal pressure¹. Other triggers described include sexual intercourse before healing is complete, Valsalva manoeuvres, vomiting, or straining^{1,10}. Risk factors for poor wound healing and dehiscence include postoperative infection, haematoma, tobacco use, diabetes, malnutrition, and prior pelvic radiation¹¹⁻¹². The main presenting symptom in this case was lower abdominal pain. Other common symptoms in the literature include vaginal bleeding or discharge¹⁰. Because early diagnosis significantly reduces morbidity and mortality, it is essential that vaginal cuff dehiscence and evisceration be considered in any woman presenting with acute pelvic or abdominal pain with a history of hysterectomy, regardless of whether bleeding or discharge is present. In this case, the hysterectomy had been performed abroad 12 weeks earlier, underlining the importance of obtaining a thorough surgical history.

This patient also had a background of multiple laparoscopic procedures and had undergone abdominoplasty at the time of her hysterectomy. However, no clear association between multiple prior surgeries or concurrent cosmetic procedures and vaginal dehiscence has been identified in the literature.

Initial emergency management involves protecting the eviscerated bowel with warm saline-soaked sterile gauze and administering broad-spectrum antibiotics¹. These steps were correctly followed in this case. Surgical repair should not be delayed. Although laparotomy was historically the preferred approach, laparoscopic or transvaginal repair can now be safely performed when the bowel is viable and there is no evidence of perforation¹³.

CONCLUSION

Vaginal cuff dehiscence with bowel evisceration is a surgical emergency. Prompt recognition, appropriate initial management, and urgent surgical repair are critical to improving outcomes and reducing complications in affected patients.

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