Small Bowel Evisceration following an Abdominal Hysterectomy

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Vaginal vault evisceration is a rare condition seen in postmenopausal women who have previously undergone hysterectomy, causing disruption of the vaginal vault and resulting in extrusion of intraperitoneal content.

We report a case of a woman who presented with spontaneous rupture of the vaginal vault and prolapse of small bowel loop two years after abdominal hysterectomy. The rent in the vaginal vault was repaired via vaginal route after the repositioning of the bowel. Vaginal evisceration remains a rare but potentially serious condition that requires emergency surgical intervention.

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Rupture of the vaginal vault leading to the evisceration of intraperitoneal contents, such as small bowel, is a rare but potentially dangerous condition. In 1864, Hyernaux provided the first description of the disruption of the anterior wall of proximal vagina and extrusion of intraperitoneal contents[1]. Later, McGregor in 1901 reported the first clinical case of vaginal evisceration of the small bowel[2]. High-risk groups for this condition include elderly, postmenopausal women, and patients with a history of hysterectomy. Predisposing factors include obstetric instrumentation, insertion of foreign bodies, increased intra-abdominal pressure when coughing and during defecation, vaginal surgery and enterocele[3].

Absence of uterus after hysterectomy could result in a potential space or cul-de-sac which increases the likelihood of descent of intraperitoneal contents; if combined with the weakening of vaginal tissue by genital atrophy and enterocele, it leads to vaginal evisceration especially in elderly and postmenopausal women[4]. Ischemia and peritonitis are the main possible complications of this condition if not diagnosed and managed early. Emergency surgery is usually required to repair the defect in the vaginal vault via abdominal, vaginal or laparoscopic routes.

The aim of this report is to present a case of spontaneous rupture of the vaginal vault and prolapse of small bowel loop two years after abdominal hysterectomy.

THE CASE

A forty-five-year-old Filipina presented with one-day history of abdominal pain and protrusion of a mass from the vagina. The pain was dull, dragging and progressive; it was aggravated by lying down and associated with yellowish vaginal discharge. The patient had no associated vomiting, diarrhea or urinary complaints. She had a feeling of heaviness in the lower abdomen which worsened over time and the patient noticed bulging of a mass from the vagina. She was suffering from constipation for the last 2 years. She had no history of recent intercourse or chronic cough. She was para 1 and had undergone a hysterectomy two years ago due to recurrent abnormal uterine bleeding. The patient did not report any intraoperative complications from the hysterectomy and she received broad-spectrum antibiotics perioperatively. She did not develop any fever, vaginal discharge or bleeding after her operation. Postoperative hysterectomy follow-up after six weeks was uneventful.

Abdominal examination revealed mild tenderness in the hypogastrium and a healed low transverse scar. Bowel sounds were normal. Pelvic examination revealed two loops of small intestine protruding from the vagina, see figure 1. The eviscerated small intestine was immediately covered with saline soaked gauze. The patient was kept nil per oral and her bladder was kept on continuous drainage. Ceftriaxone 1g IV daily and Metronidazole 500 mg IV three times daily were administered for five days.

Figure 1: Small Bowel Loops Eviscerating from the Vagina

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Under general anesthesia, the eviscerated bowel loops were examined by a general surgeon and were found viable. The gut loops were gently pushed back inside. After the restoration of the bowel, a transverse defect of 4 to 5 cm was seen in the vault. The edges of the rent of the vault were repaired with vicryl by interrupted sutures, see figures 2-4.

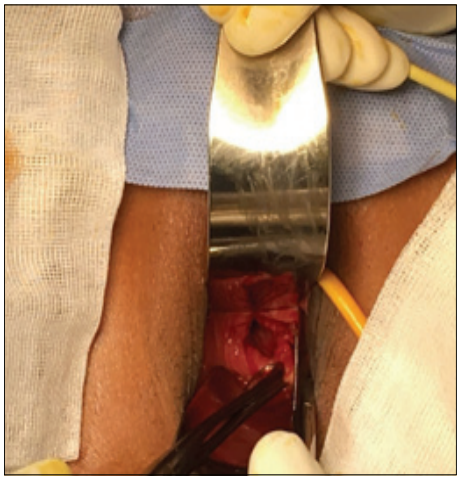

Figure 2: Edges of the Vault Held with Long Allis Tissue Holding Forceps

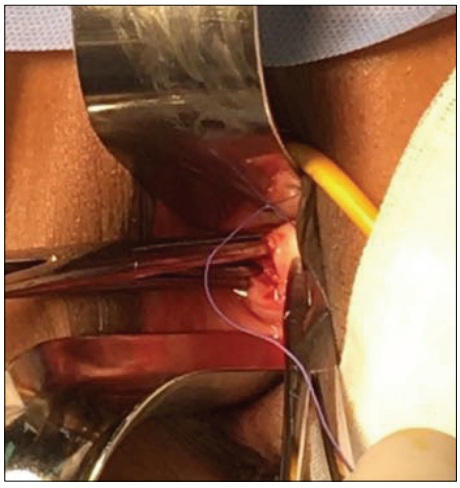

Figure 3: Suturing of the Edges

Figure 4: After Repair of the Vault

The patient was on antibiotics postoperatively; she had an uneventful recovery and was discharged on the fifth postoperative day. Six weeks after the surgery, the patient reported regular bowel habits and voiding of urine.

DISCUSSION

Transvaginal evisceration of small bowel is a rare gynecological condition frequently seen in postmenopausal women either spontaneously or associated with increased intra-abdominal pressure induced by cough, defecation or trauma[3]. In postmenopausal women, genital atrophy makes the vagina thin, less vascularized and hence, prone to rupture.

Previous studies revealed that 50-75% of cases had history of previous vaginal surgeries and approximately 25% of cases were associated with abdominal hysterectomy[4,5]. The potential space or cul-de-sac created in absence of the uterus after hysterectomy increases the likelihood of descent of intraperitoneal contents through a vagina weakened by genital atrophy. The common sites of vaginal rupture are vaginal vault and posterior fornix. The most frequent protruding intra abdominal viscus is the terminal ileum because of its close proximity to the pelvis and its long mesentery which provides sufficient mobility[6].

Evisceration of the large bowel was a risk, but our case was spared this complication. Involvement of the bowel warrants administration of broad-spectrum antibiotics early for a better postoperative outcome. Injury and gangrene of the gut are complications of vaginal evisceration that require emergency laparotomy and gut resection. If the presentation or diagnosis is delayed, the patient may present with intestinal obstruction and shock[7].

The diagnosis of vaginal evisceration does not require specific investigation; however, a plain abdominal film is recommended to exclude foreign bodies. The management includes hemodynamic stabilization of the patient, protection of the bowel with sterile wrappings soaked in warm saline, and surgical repair under antibiotic cover. Some authors have cautioned against immediate repair in cases of infection or unhealthy tissue, but most authors have described good results of immediate closure as it decreases the risk of peritonitis and revisceration[6].

Repair of the defect is possible by abdominal, vaginal, laparoscopic approach or a combination of two. The selection depends upon several factors including the viability of bowel, the presence of foreign body and the experience of the surgeon[8]. In cases of viable bowel, reduction of gut loops into peritoneum is usually achieved without complications and a vaginal approach is preferred. If the bowels were found strangulated, laparotomy for repair of vaginal defect and resection of the gut are indicated[9].

During the repair of vaginal defect, friable edges are excised and the vaginal vault is sutured. To reduce recurrence, the rectovaginal cul-de-sac is obliterated and a vaginopexy is performed by fixing vaginal vault to the sacrospinous or uterosacral ligaments[10]. Our case highlights the importance

of early recognition and prompt management of vaginal evisceration in order to minimize morbidity and mortality. Since the incidence of hysterectomies has increased in recent years, it is expected that more patients are likely to present with this condition.

CONCLUSION

Vaginal evisceration should be treated as an emergency and its management requires multi-disciplinary team to manage the patient in a timely manner. Awareness as well as a high index of suspicion among gynecologists, general surgeons and allied healthcare professionals is necessary because early recognition is crucial for a favorable outcome.

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