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CASE REPORT

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Delayed life-threatening vaginal dehiscence following hysterectomy

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Abstract We describe a case of an elderly patient who presented as an acute surgical emergency with strangulated intestine prolapsing through the vagina and onto the vulva. She became cardiovascularly unstable and required resuscitation before emergency surgery to resect infarcted intestine and repair the vaginal vault. The pathogenesis and management of this unusual complication of hysterectomy are discussed.

Keywords Vaginal vault · Evisceration · Post menopause

Introduction

We describe a case of an elderly patient who presented as an acute surgical emergency with strangulated intestine prolapsing through the vagina and onto the vulva. She became cardiovascularly unstable and required resuscitation before emergency surgery to resect infarcted intestine and repair the vaginal vault. The pathogenesis and management of this unusual complication of hysterectomy are discussed.

Case report

An 87-year-old lady presented to the Accident and Emergency Department with central abdominal pain and a sensation of vaginal prolapse of a few hours duration. She had undergone vaginal hysterectomy 12 years previously and following that operation admitted to a degree of vaginal prolapse on straining at defaecation. On examination she was in fast atrial fibrillation with acute heart failure. The abdomen was soft, and there were visible loops of intestine protruding at the vulva (Figs. 1, 2)

She was actively resuscitated with intravenous frusemide, digoxin and diamorphine. Her full blood count and urea and electrolytes were normal. Once stabilised, she underwent a laparotomy and resection of the infarcted bowel. A right hemicolectomy with ileo-transverse anastomosis was performed by a gastro-intestinal surgical team. In the lithotomy position, necrotic vaginal tissue was excised by the gynaecologist per vaginam, and the vagina was repaired using Vicryl sutures and a Proflavine-soaked gauze pack. The abdomen was closed in a standard fashion using surgical drains. Postoperatively, the patient was managed on a High Dependency Unit using epidural analgesia, inotropes and broad-spectrum antibiotics. Removal of the vaginal pack revealed healthy, healing tissues, and there were no complications from her laparotomy. She made a slow and steady recovery and after rehabilitation was discharged home 59 days postoperatively.

Discussion

Delayed vaginal dehiscence after hysterectomy is rare, but typically affects the frail and elderly who often display significant co-morbidity. Its true incidence is not documented, and its mortality must be presumed to be high. Patients may give a history of pelvic discomfort, vaginal discharge and vaginal bleeding, but it is not un-

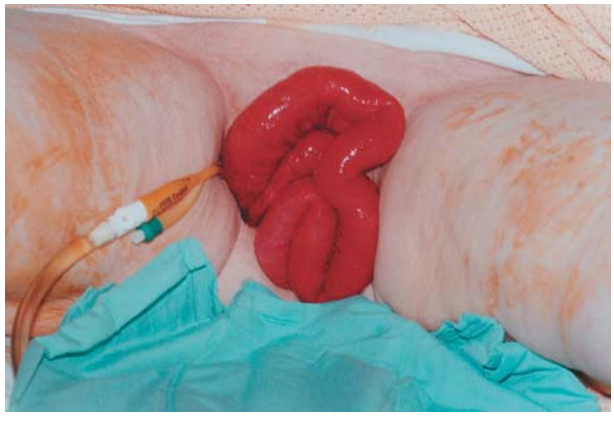

Fig. 1 Strangulated and ischemic loops are visible

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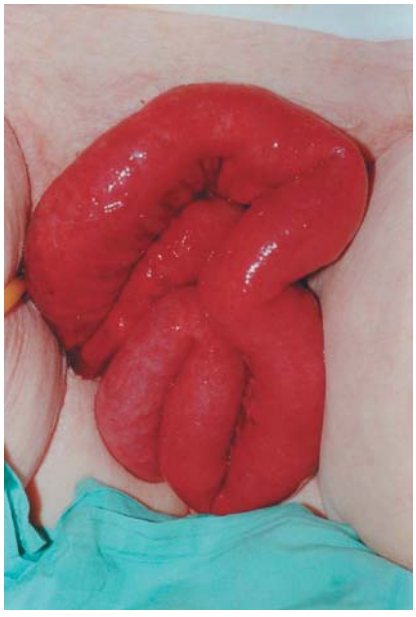

Fig. 2 Strangulated and ischemic loops are visible

usual for ischaemic gut to present acutely in the vagina. Interestingly, we are not aware of any reports of the condition presenting as an entero-vaginal fistula. Vaginal dehiscence appears more commonly to complicate vaginal rather than abdominal hysterectomy [1]. Women with vaginal hysterectomy tended to rupture through a posterior enterocele [2]. Pre-menopausal rupture in women occurs much less frequently and is associated with post-coital trauma, involving the posterior fornix. Laparoscopic hysterectomy may also be related to this type of complication [3]. Pathogenesis is related to vaginal atrophy in the elderly, which may be precipitated by a variety of factors. Such factors include hypo-oestrogenic pelvic floor devascularisation at hysterectomy and pelvic radiotherapy for gynaecological malignancies. Co-morbidities such as malnutrition and steroid usage may increase risk, and any sudden increase in intra-abdominal pressure from coughing, sneezing or straining at defaecation may trigger the acute event. Interestingly, there is no clear association with pelvic infection. Histopathologic evaluation of cases may reveal chronic vaginal-peritoneal fistula, and immunohistochemistry has highlighted migration of squamous cells to multiple peritoneal serosal surfaces. These findings emphasize the chronic nature of factors that predispose to acute evisceration of abdominal contents [4]. Life-saving emergency surgery is always required to release the ischaemic gut and to resect infarcted tissue. Early surgery may allow vaginal reduction of intestine before infarction occurs. It may then be possible to repair the pelvic floor without the need for laparotomy. In the presence of a large enterocele, it may be possible to perform resectional intestinal surgery per vaginum. Otherwise, a full laparotomy will be required. Sporadic reports document laparoscopic-assisted vaginal surgery in some cases [5]. A combined laparoscopic and vaginal approach employing an omental flap [6] has been reported successfully. Once a gastro-intestinal emergency has been resolved, attention needs to focus on repair of the vagina and pelvic floor. In cases of dubious tissue viability, it may be wise simply to pack the vagina with a view to a delayed repair [4]. Small defects in a viable pelvic floor can be repaired by simple suturing. Where the pelvic floor presents with a large defect or very weak tissues, repair may be achieved using omental grafts [6] and synthetic mesh [7].

Prevention might conceivably be achieved by the use of topical oestrogen creams in the at-risk post-hysterectomy population known to suffer from vaginal atrophy. Additional measures in these patients would include awareness of the complication at the time of surgery so that particular attention is given to optimising pelvic floor repair, particularly after vaginal hysterectomy.

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