



Case Report

Spontaneous Transvaginal Evisceration of the Small Intestine : A Rare Complication of Hysterectomy

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Abstract

Evisceration of the small intestine through the vaginal cuff is a rare surgical entity scarcely reported in literature with a high risk of strangulation and necrosis of the prolapsed bowel. We report the case of an evisceration of the small intestine through the vaginal cuff in a 75 years old female patient with a medical history of total hysterectomy for uterine prolapse and fibroids. Successful reintegration of the prolapsed bowel and repairing of the vaginal defect were carried. Early diagnosis and timely surgical intervention are justified by the high potential of complications. In case of doubts about the viability of the bowel or if transvaginal reduction is not possible, a combined transabdominal approach should be used.

Introduction

Evisceration of the small intestine through the vaginal cuff is a rare surgical entity with high risk of morbidity related to bowel ischemia and necrosis. Few cases have been reported in the literature thus the exact incidence is difficult to assess. Multiple factors have been incriminated and relate to thickening of the vaginal wall and weakening of the pelvic muscles including uterine or rectal prolapse, previous pelvic surgery and radiotherapy. We report the case of an evisceration of the small intestine through the vaginal cuff in a 75 years old female patient with a medical history of total hysterectomy for uterine prolapse and fibroids. Successful reintegration of the prolapsed bowel and repairing of the vaginal defect were carried. Postoperative clinical course was positive.

Case Report

We report the case of 75 years old female patient gravida 9

para 8. She has a medical history of total hysterectomy by vaginal approach for uterine prolapse and fibroids operated one year ago in another medical institution. The follow-up was uneventful, and the patient developed a rectocele and was put under perineal rehabilitation in preparation for surgery. She did not report any significant history of chronic illnesses. The patient presented to our emergency department complaining of severe abdominal pain feeling a protrusion through the vagina and cessation of gas and feces for the last 12 hours. Upon clinical examination, the patient was in stable condition, slightly tachycardic with a pulse of 92 bpm. Examination of the perineum revealed a prolapse of around 50 - 60 cm of thickened and ischemic small intestinal bowels through the vagina (Figure 1).

Laboratory findings revealed leukocytosis of $12.6 \times 10^9/L$ (normal 4.0–11.0), elevated C-reactive protein of 50 mg/L (normal <5). Fluid resuscitation and intravenous broad-spectrum antibiotic

administration (Metronidazole and Ceftriaxone) were initiated. Since the clinical diagnosis was evident, CT was not performed to save time. Urgent surgery was decided with the hope to preserve intestinal viability and avoid intestinal resection as possible. The eviscerated intestine was covered with sterile, saline-soaked packs and the patient was admitted to the operating room. Subumbilical midline laparotomy with gynecological position was performed, by using abdominal and vaginal approach, successful reduction of approximately 60 cm of prolapsed small intestine located at 10 cm proximal to the ileocaecal valve, and was re-integrated into the abdominal cavity. After reintegration and abundant wash with sterile saline solution, the intestine regained a normal coloration (Figure 2). A conservative approach was decided since there were no signs of necrosis, edema or ischemia. A defect approximately 6 cm of the vaginal cuff was identified and successfully repaired by non absorbable suture. Post operative recovery was marked by a temporary ileus on postoperative days (POD) 3 and 4 but otherwise uneventful. The patient was discharged on POD6. Upon follow-up, the patient had a positive clinical course without any complications.



Figure 1: Prolapsed and ischemic small bowel through the vagina.



Figure 2: peroperative image of the reintegrated bowel.

Discussion

Tranvaginal evisceration is a rare but potentially life-threatening complication. First described by Hypernaux et al [1] and since then only over 100 cases have been reported in the literature [2-6]. It occurs mostly in postmenopausal women in 70% of the cases due to a possible association of hypoestrogenism, chronic tissue devascularization, and pelvic floor weakness [7,8]. Described factors linked to weakening of pelvic floor include : pelvic surgery, prolapse, pelvic radiotherapy and multiparity. Many other factors can contribute to this condition such as obesity, smoking or hypothyroidism. In case of a previous pelvic operation, Croak et al. reported a 0.032% incidence of vaginal evisceration in their review of all hysterectomies and pelvic repairs performed at Mayo Clinic [7]. The cases reported in the literature describe frequently a triggering factor to the evisceration: this can be a recent trauma or surgery, coughing, constipation or any other factor that would increase the intra-abdominal pressure suddenly in the context of pelvic floor weakness [9,10]. In this case, our patient was multiparous with a history of hysterectomy and rectocele that

required perineal rehabilitation translating to a weakening of the pelvic floor muscle and was likely a contributing factor to the evisceration of the intestine even if there was no direct triggering factor.

Previous studies reported a mortality rate of 15–20% [2,4] Immediate surgical intervention is necessary in such cases to avoid further morbidity as the major risk is ischemia and necrosis of the prolapsed intestine due to a prolonged strangulation mechanism. Early diagnosis and timely surgery are crucial. However, this clinical situation is rare and there is no unified consensus and the surgical approach should be tailored to each patient's individual situation by a multidisciplinary team. [11,12]. The key principle of surgery is to assess the status of the prolapsed intestine which helps determine the optimal surgical approach. A transvaginal approach with reintegration of the eviscerated intestine and subsequent transvaginal repair may be feasible and can be considered in the absence of signs of ischemia and acute abdomen. However this limits thorough inspection of bowel length. [10].

A combined transabdominal approach should be used in case of doubts of viability of the bowel or if the transvaginal reduction is not possible due to edema of the prolapse viscus. In our case, due to the ischemic aspect of the intestine, a midline laparotomy was the approach of choice. The prolapsed small bowel restored its vital color after reintegration and a conservative strategy was adopted. In many cases, ischaemic, non-viable bowel requires resection and anastomosis [4,13,14]. Repairing the vaginal defect can be carried equally through abdominal or vaginal approaches.

Conclusion

Evisceration of the small intestine through the vagina is a rare but serious complication that requires immediate surgical intervention. Early diagnosis, prompt intervention, and post-operative follow-up are essential to minimize morbidity and ensure a good recovery.

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