

## Research Letter

## Peritonitis caused by vaginal evisceration following laparoscopy-assisted vaginal hysterectomy

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This report describes a rare case of omentum evisceration via the vagina, causing peritonitis after an uncomplicated laparoscopy-assisted vaginal hysterectomy. Vaginal evisceration is a surgical emergency requiring immediate treatment.

A 41-year-old G0 P0 woman was referred to our unit owing to a palpable abdominal mass. She decided to undergo a hysterectomy instead of myomectomy after counseling. Laparoscopy-assisted vaginal hysterectomy was performed without complication. The uterus was removed via colpotomy and the vault with the peritoneum was closed using a series interrupted No. 1-0 Vicryl sutures; the vault was also fixed to pelvic ligaments. Intravenous antibiotic cefazoline (Winston, Taiwan) 2 g was administered intraoperatively. Although we recommended respite, she did not comply owing to work obligations. She denied any sexual activity after the surgery.

Two months later, she was presented to our clinic with abdominal pain and vaginal bleeding for 1 day. Physical examination revealed rebound tenderness in the lower abdomen and a soft protruding mass from the vaginal cuff associated with lifting pain was found on pelvic examination. Laboratory data demonstrated an elevated white blood cell (WBC) count of  $13.63 \times \text{THSD}$  with a neutrophil count of 79.8%. The patient's vital signs were normal. She was taken to the operating room and antibiotic cefmetazole (Japan, Daiichi Sankyo) 2 g IV stat and 1 g IV q6h were administered. Laparoscopic examination revealed an eviscerated edematous omentum, which was reduced to the peritoneal cavity (Fig. 1). The vaginal cuff was repaired via the vaginal route using interrupted 1-0 Vicryl sutures. She was strongly advised to not do activities that required heavy lifting for 2 months.

Vaginal evisceration is rare. The incidence of vault dehiscence is higher after laparoscopic hysterectomy (1.14%) than after abdominal hysterectomy (0.10%,  $p < 0.0001$ , OR = 11.5) and vaginal hysterectomy (0.14%,  $p < 0.001$ , OR = 8.3) [1]. In our unit, this is the only case of vaginal evisceration out of 1761 cases of hysterectomy [including total abdominal hysterectomy (TAH), vaginal hysterectomy (VH), subtotal hysterectomy (SAH), laparoscopy-assisted vaginal hysterectomy (LAVH) (1133 cases), and radical hysterectomy (RH)] between March 2003 and May 2011. From our experience, the incidence of vaginal evisceration is 0.056% of all hysterectomies and 0.088% of LAVHs. Prior history of increased intra-abdominal pressure, steroid therapy, radiotherapy to the pelvis, poor operative technique, pelvic infection, sexual intercourse, obstetric trauma, vaginal atrophy, pelvic floor weakness, and pelvic surgery have been implicated as potential etiologies of vaginal evisceration [1–4]. It remains unclear whether it is the use of transvaginal interrupted delayed absorption Vicryl suture material, the prolonged abstinence from sexual intercourse or the lack of heavy lifting work in these cases explains the low incidence of vaginal evisceration.

Although surgery can be via the vagina [5], the combined laparoscopic and transvaginal approach is advantageous: Laparoscopy allows direct visualization and assessment of the eviscerated viscus, therefore facilitating the reduction of the herniated viscus. The transvaginal route facilitates optimum closure of the vaginal stump [6].

Prompt assessment and reduction of the herniated viscus with surgical repair of the stump defect is extremely

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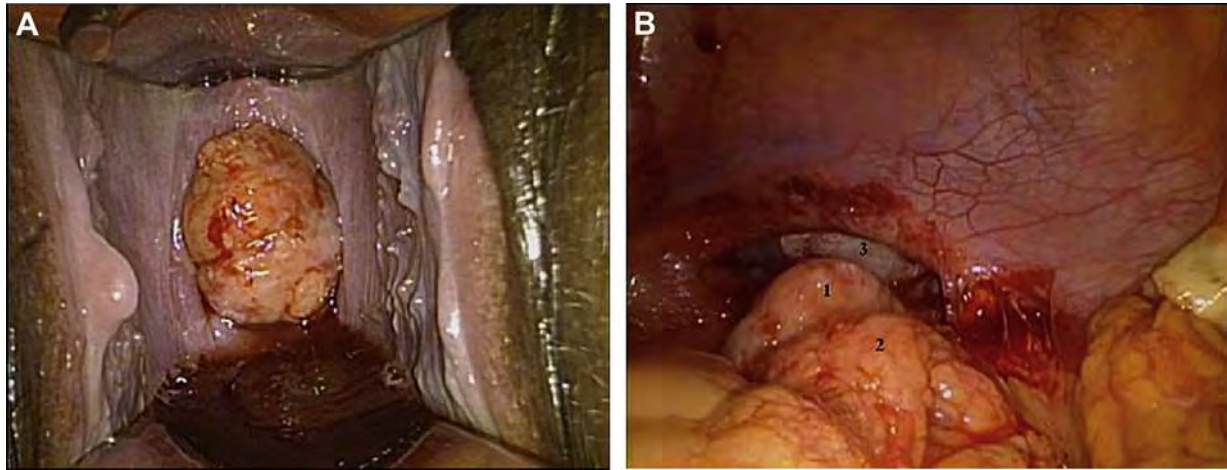


Fig. 1. (A) Pelvic examination revealed omentum prolapsing per vaginal cuff. (B) Laparoscopic examinations demonstrated edematous inflamed omentum (1, 2), which is pulled back to the pelvis from the dehiscence vaginal cuff (3).

important. Although rare, surgeons who perform hysterectomies may come across these rare complications and must be aware of their life-threatening implications.

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