

## Transvaginal bowel evisceration 8 years after vaginal hysterectomy – a rare surgical emergency

### Evisceração intestinal transvaginal 8 anos após histerectomia vaginal – uma emergência cirúrgica rara

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#### Abstract

Vaginal cuff dehiscence (VCD) and evisceration are rare but potentially severe complications of hysterectomy, with a significant risk for patient morbimortality. The authors report a case of transvaginal small bowel evisceration in a 91-year-old woman, 8 years after a hysterectomy, identified after the occurrence of a fall. Immediate manual bowel reduction and VCD correction were performed in the operating room. On the 3rd postoperative day, her intestinal transit was restored and seven days after surgery she developed acute pulmonary edema, which caused her death.

**Keywords:** Vaginal hysterectomy; Vaginal cuff dehiscence; Intestinal evisceration.

#### Resumo

A deiscência da cúpula vaginal e a evisceração são complicações raras, mas potencialmente graves da histerectomia, com risco significativo de morbimortalidade da paciente. Os autores relatam um caso de evisceração transvaginal de intestino delgado numa mulher de 91 anos, 8 anos pós-histerectomia, identificada após uma queda. A redução manual do intestino e a correção da cúpula vaginal foi realizada no bloco operatório. Ao 3.º dia pós-operatório, o trânsito intestinal estava restabelecido e 7 dias após cirurgia, ela desenvolveu edema agudo do pulmão, o que provocou a sua morte.

**Palavras-chave:** Evisceração intestinal; Deiscência de cúpula vaginal; Histerectomia vaginal.

#### IMAGE REPORT

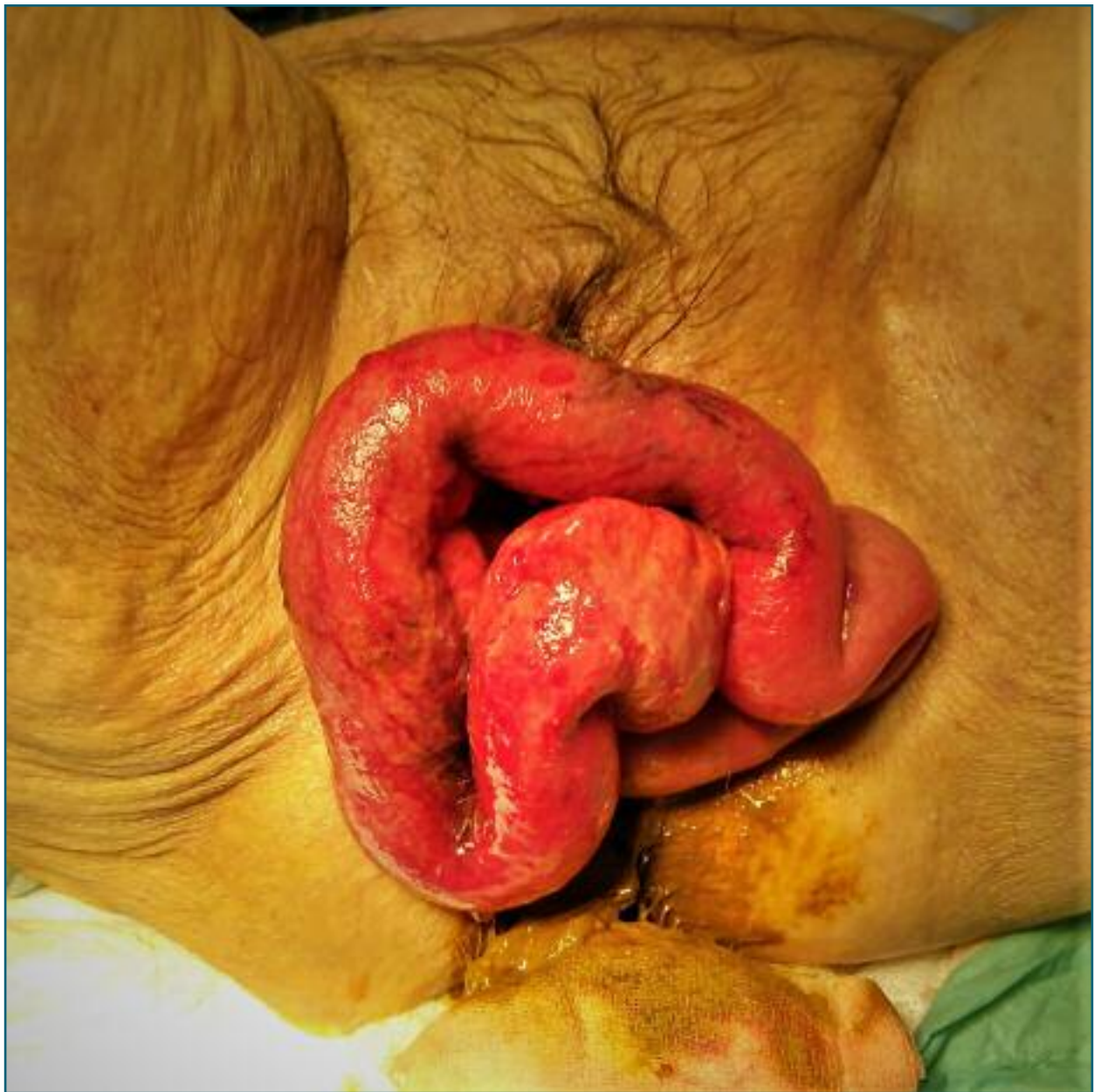
A 91-year-old woman with Alzheimer's dementia, arterial hypertension, dyslipidemia, and diabetes mellitus type 2, without surgical history, who has undergone a previous vaginal hysterectomy 8 years ago, performed for symptomatic hysterocele. Both the sur-

gery and the postoperative period were uneventful. She was brought to the gynecology emergency department due to a large vulvar swelling, after an unattended fall. At admission, the woman was disoriented and non-cooperative (no different from her usual), with abnormal flexor response to painful stimuli, afebrile and hemodynamically stable. Gynecological examination revealed evisceration of intestinal loops through the vagina, swollen and soiled with feces (due to fecal incontinence). There wasn't macroscopic intestinal damage and it was not possible to identify the vaginal mucosa, due to the interposition of intestinal loops (Figure 1).

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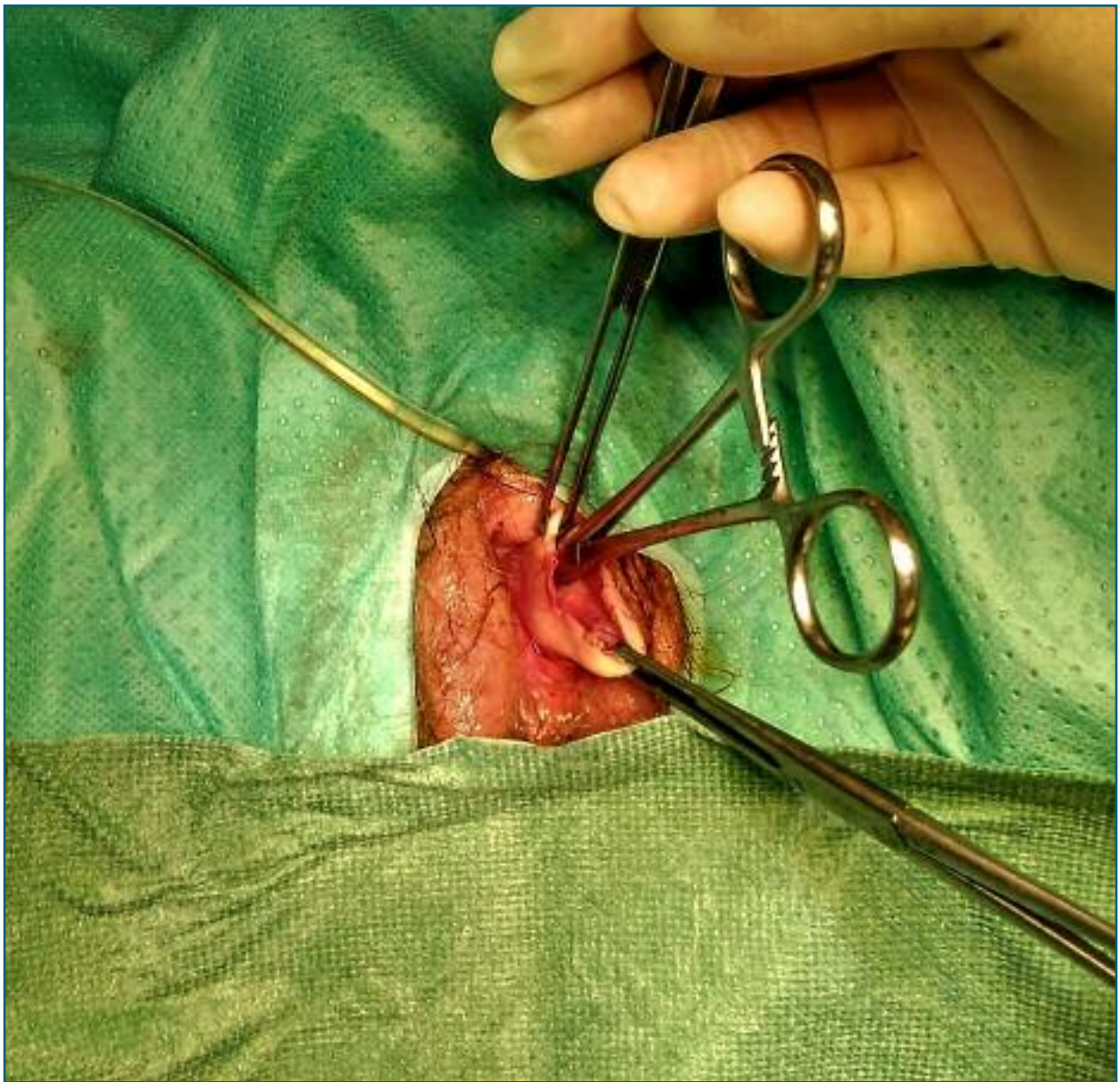


**FIGURE 1.** Small bowel eversion, swollen and fouled with feces.

In the operating room, the surgical team promptly underwent manual reduction of the eversion in collaboration with general surgery, once exposed intestinal loops appeared viable. VCD was identified, with no lacerated or bleeding edges and no pathological vaginal or peritoneal exudates were observed. Cuff closure was performed by the gynecology team (Figure 2). The granulation tissues at the vaginal cuff's

edge were excised and dehiscence correction was carried out using tobacco pouch suture and invaginating suture of the closed orifice. Broad-spectrum intravenous antibiotics (cefuroxime and metronidazole) were administered.

Three days after, her intestinal transit was regularized, without signs of peritoneal irritation. Analytically there was mild hypokalemia ( $K^+$  3.2 g/dl) and C-react-



**FIGURE 2.** Vaginal cuff dehiscence.

tive protein in descending profile (194 mg/L in 1st postoperative day to 127 mg/L in 3rd postoperative day).

Between the 3rd and the 6th postoperative day, the patient completed a cycle of IV antibiotic therapy and hypokalemia correction. On the 7th postoperative day, after an episode of food aspiration, she developed acute pulmonary edema, with the need for ventilation support. Considering the patient's age and her dependence on activities of daily living, it was decided to

implement comfort measures. The patient died 6 hours later.

After a hysterectomy, a vaginal incision is typically closed by suturing the anterior and posterior edges together. VCD, which consists of the separation of the vaginal edges, is a rare gynecological surgical complication. Our patient missed the postoperative consultation, so it was not possible to evaluate the integrity of the vaginal vault after surgery. However, her

daughter did not describe complications after the hysterectomy.

In the literature, VCD's incidence is estimated between 0.032% and 1.25%<sup>1,2</sup>, depending on the mode of hysterectomy, surgical technique, suture utilized for cuff closure, and operator's experience<sup>3</sup>. Most studies are underpowered and lack direct comparison groups within each mode of hysterectomy to be able to effectively assess the effect of these different variables<sup>4</sup>. Additionally, there is no consensus about the ideal method of surgical repair after VCD or evisceration<sup>3</sup>. In our case, the cold-cut colpotomy technique using scissors was performed and the suture of the vaginal cuff was executed with U-stitches with multifilament braided thread 1/0.

VCD can lead to a vaginal evisceration of abdominal viscera – an emerging surgical condition, whose incidence, with few cases reported in the literature, is difficult to determine. The median time reported for evisceration after pelvic surgery is 20 months<sup>5</sup>. Evisceration can occur spontaneously, but some risk factors have been reported following vaginal traumas caused by coitus, obstetric instrumentation, foreign body insertion, and direct trauma, as well as after pelvic surgery and in patients with enterocele<sup>4,6</sup>. Besides that, it could be associated with a sudden increase in intra-abdominal pressure such as cough, constipation, or fall in postmenopausal women<sup>4,6</sup>. This is in line with the characteristics of our patient – a postmenopausal woman with a previous hysterectomy and a history of falls, which cannot be excluded as a cause of evisceration.

The evisceration of the bowel through the VCD can be complicated with ischemia, perforation, deep thrombosis vein, intra-abdominal sepsis, peritonitis, and death, hence the need for brevity in its surgical resolution<sup>7</sup>.

The authors present this case to remind gynecologists of the importance of early diagnosis of this rare life-threatening condition, the multidisciplinary approach, and prompt surgical intervention to prevent necrosis, sepsis, and death.

## REFERENCES

1. Hur H-C, Donnellan N, Mansuria S, Barber RE, Guido R, Lee T. Vaginal cuff dehiscence after different modes of hysterectomy. *Obstetrics & Gynecology*. 2011;118(4):794-801.
2. Uccella S, Ceccaroni M, Cromi A, Malzoni M, Berretta R, De Iaco P, et al. Vaginal cuff dehiscence in a series of 12,398 hysterectomies: effect of different types of colpotomy and vaginal closure. *Obstetrics & Gynecology*. 2012;120(3):516-23.
3. Cronin B, Sung VW, Matteson KA. Vaginal cuff dehiscence: risk factors and management. *American journal of obstetrics and gynecology*. 2012;206(4):284-8.
4. Nezhat C, Burns MK, Wood M, Nezhat C, Nezhat A, Nezhat F. Vaginal cuff dehiscence and evisceration: a review. *Obstetrics & Gynecology*. 2018;132(4):972-85.
5. Rogers P, Lee H, Jape K, Ng ZQ, Koong D. Vaginal evisceration of the small bowel. *Journal of Surgical Case Reports*. 2019;2019(11).
6. Salad NM, Omar AA, Mohamed YG. Spontaneous transvaginal small bowel evisceration secondary to vaginal cuff dehiscence after abdominal hysterectomy: A case report. *Annals of Medicine and Surgery*. 2022;79:103986.
7. Sterk E, Stonewall K. Vaginal cuff dehiscence—A potential surgical emergency. *The American Journal of Emergency Medicine*. 2020;38(3):691. e1-e2.

## AUTHOR CONTRIBUTIONS

All authors made a substantial contribution to the information or material submitted for publication.

## CONSENT

Informed written consent has been obtained and all identifying information is omitted.

## DECLARATIONS OF INTEREST

The authors have no conflicts of interest to declare.

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