

## CASE REPORT

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# Vaginal vault dehiscence and postoperative evisceration: case report

## Dehiscencia de cúpula vaginal y evisceración posquirúrgica: reporte de caso

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### ABSTRACT

Vaginal cuff dehiscence is the premature separation of the sutured vaginal incision, which in 70% of the cases manifests with evisceration of intestinal loops through the vaginal canal. Among its risk factors, age and alterations in the postoperative hysterectomy site stand out. The diagnosis is made by means of an adequate physical examination and the treatment, purely surgical, involves the return of the intestinal viscera and correction of the dehiscence. We describe the case of a 50-year-old woman who presented dehiscence of the vaginal vault with evisceration of a portion of the distal ileum, who underwent surgical and pharmacological treatment.

**Key words:** Surgical wound dehiscence, Hysterectomy, Case reports.

### RESUMEN

La dehiscencia de cúpula vaginal es la separación precoz de la incisión vaginal suturada, que en el 70% de los casos se manifiesta con una evisceración de asas intestinales a través del conducto vaginal. Dentro de sus factores de riesgo, destacan la edad y alteraciones en el lugar postoperatorio de histerectomía. El diagnóstico se realiza mediante un adecuado examen físico, y el tratamiento, netamente quirúrgico, involucra el regresar las vísceras intestinales y corregir la dehiscencia. Describimos el caso de una mujer de 50 años, que presentó dehiscencia de la cúpula vaginal con evisceración de una porción de íleon distal, a quien se le practicó tratamiento quirúrgico y farmacológico.

**Palabras clave.** Dehiscencia de la herida operatoria, Histerectomía, Informes de casos.

### INTRODUCTION

Vaginal vault dehiscence (VCD) is the early separation of the sutured vaginal incision after total hysterectomy with or without exteriorization of the contents of the abdominal cavity.<sup>(1)</sup> It has an incidence of 0.1% following total abdominal hysterectomy (TAH)<sup>(2)</sup>. Vaginal evisceration (VE) is an extremely rare serious post-surgical complication arising from VCD in 70% of cases, representing high morbidity and mortality if not diagnosed and treated in time. The terminal ileum is the most common organ of evisceration by vagina<sup>(3,4)</sup>.

The following are risk factors for VCD: age, comorbidities, poor nutritional status, factors related to the surgical and post-surgical act, coitus, use of corticosteroids, radiotherapy, multiparity and behaviors that increase intra-abdominal pressure<sup>(5)</sup>.

The clinical manifestations include pelvic pain, watery secretions and bleeding which can facilitate its diagnosis and management<sup>(3)</sup>.

The aim of this paper is to report a case of VCD complicated with intestinal evisceration after two months of TAH.



## CASE REPORT

A case of VD associated with VCD after hysterectomy is presented. This was a 50-year-old postmenopausal, vegan female patient who presented to the emergency department for sudden colicky pelvic pain, palpation of soft structure in the genitalia and scanty bleeding; in addition, nausea and vomiting. The patient reported having had coitus three hours prior to the onset of symptoms.

According to her medical history, two months prior to presentation she underwent TAH for chronic pelvic pain due to uterine leiomyoma. She had an uncomplicated postoperative course, with a favorable evolution, and the use of topical estrogens as hormonal therapy.

During the physical examination the patient was found to be hemodynamically stable, with no signs of sepsis. Pelvic examination revealed a bundle of thin bowel loops exposed through the vagina. The bowel loops (Figures 1 and 2), corresponding to a segment of distal ileum, approximately 50 centimeters long, were congested, edematous and erythematous, with peristaltic movements and preserved muscle tone.

After urgent preoperative assessment, the patient underwent surgery under anesthesia. The protruded bowel was mechanically cleaned with warm saline solution. Subsequently, a laparot-

FIGURE 1. VAGINAL EVISCERATION.



FIGURE 2. SIGNS OF ISCHEMIA AND STRANGULATION OF EVISCERATED INTESTINAL LOOPS.



my was performed over the scar of the previous Pfannenstiel incision. As an incidental finding, decreased thickness of the rectus abdominis sheath was observed. The defect was corrected with reinsertion of the eviscerated loops and closure of the vaginal vault.

There was no evidence of intra-abdominal or pelvic abscess. The postoperative period passed without major complications. However, laboratory tests showed mild anemia (Hb: 10 mg/dL). The patient remained hemodynamically stable and was discharged on the second post-operative day. She was prescribed antibiotics and analgesics for 5 days.

The patient abandoned veganism. A follow-up examination at 1 month revealed complete recovery.

## DISCUSSION

Vaginal evisceration associated with vaginal vault dehiscence is a postsurgical complication of low incidence and variable occurrence, which can occur from three days to thirty years after hysterectomy<sup>(3)</sup>. The patient presented HAT as a surgical antecedent, two months prior to VD. According to Nissia et al, the development of VCD following TAH is up to 71 times less frequent compared to other types of procedures such as total laparoscopic hysterectomy.

Possible explanations for VCD include the use and manner of opening the vagina, as well as the material and technique used to close the vagina. The duration of the operation, the surgeon's experience and the characteristics of the woman are also included<sup>(6,7)</sup>. In postmenopausal women, the



hyposecretion of estrogens contributes to vaginal atrophy and propensity to rupture<sup>(2)</sup>. Other factors predisposing to post-surgical wound dehiscence are malnutrition, hypoproteinemia and anemia, which affect collagen synthesis and proper wound healing<sup>(8)</sup>. This has been corroborated by Fusano and collaborators, who found lower levels of iron, vitamin B12, wound diastasis and worse extension and impression of the post-surgical scar in vegan patients versus omnivores<sup>(9)</sup>. This could explain the patient's VCD and decreased thickness of the rectus abdominis muscles. Added to this are triggering factors such as vaginal vault disruption secondary to coitus prior to complete healing after hysterectomy, in addition to long-standing vaginal vault prolapse and the occurrence of enterocele<sup>(10)</sup>.

In conclusion, EV following VCD is a medical emergency that should be diagnosed and managed early, in order to preserve the viability of the eviscerated bowel and avoid lethal complications. Knowledge of the patient's risk factors, such as previous hysterectomy, age and diet, will allow a better approach and repair of the defect.

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