

DOI: <https://dx.doi.org/10.18203/2320-1770.ijrcog20240145>

Case Report

Coitus induced colpo evisceration in a 3-months post hysterectomy patient: an unusual tale in gynecology

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Received: 30 November 2023

Revised: 04 January 2024

Accepted: 05 January 2024

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ABSTRACT

Vaginal dehiscence after pelvic surgery is an extremely rare gynecological emergency world over. Without a high index of suspicion, it can easily be missed with grave consequences. We present an extremely rare case of this post abdominal hysterectomy case for which if immediate suspicion and timely intervention were not ensured, the patient would have suffered serious morbidity and/or death.

Keywords: Vaginal evisceration, Vaginal dehiscence, Hysterectomy, Bowel protrusion

INTRODUCTION

Vaginal cuff dehiscence and evisceration can be defined as full thickness separation of the anterior and posterior edges of the vaginal cuff with subsequent herniation of intra-abdominal contents through the vagina.¹ Although the small intestine is the most common organ to eviscerate, any structure can do so including omentum and uterine adnexae. Pelvic evisceration after a pelvic surgery is an extremely rare surgical emergency with an overall incidence after pelvic surgery of about 0.032% and 1% following perineal trauma.² Risk factors include previous vaginal surgery, enterocele, and advanced age.³

Vaginal evisceration requires prompt recognition and immediate surgical intervention without of which can result in serious morbidity and mortality. The associated mortality rate is 5.6%.⁴ Morbidity is higher when the bowel has become strangulated through the vaginal defect.

CASE REPORT

A 36 years old woman with personal history of well controlled chronic hypertension using regularly enalapril plus hydrochlorothiazide that underwent total abdominal hysterectomy three months prior our encounter due to uterine leiomyomas. She arrived at the hospital emergency department complaining of mild to moderate lower abdominal pain for two days associated with vaginal sensation of heaviness and scanty per vaginal bleeding following sexual intercourse. Already in the emergency room she refers an uncontrollable desire to defecate and when pushing a protrusion of small intestine loop of around 3 cm occurred through the vaginal introitus. On examination she was moderately wasted, BMI 16 kg/m², afebrile to touch with axillary temperature of 36.6 °C. She had moderate pallor of the mucous membranes, no jaundice, edema nor palpable superficial lymph nodes. Respiratory and cardiovascular systems assessment was unremarkable. Abdomen was of normal fullness,

symmetrical, and moving with respiration however moderate tenderness in the hypogastrum was noted. No organomegaly was noted. Central nervous system assessment was unremarkable. Gynecological examination revealed a loop of around 3 cm of small bowel protruding in the vaginal introitus. No obvious lesion was noted on the intestine, but the dehiscence of the vaginal vault was seen with mild active bleeding. Gauze embedded with normal saline was accordingly placed around the bowel loop, to protect it and gauge-18 intravenous cannula inserted, blood for full haemogram, clotting and grouping and cross matching taken, 500 ml of ringers lactate started, cefazoline 1 g and metronidazole 500 mg stat doses administered. Laboratory report showed moderate anemia with a hemoglobin of 7.7 mg/dl with no other abnormalities. The patient was immediately taken to the surgical theater for further exploration under general anesthesia and treatment.

In theatre, an aseptic technique was strictly adhered to. With patient in lithotomy position, under general anesthesia, vaginal exploration was initially done. Vaginal vault dehiscence and evisceration were accordingly confirmed. Keen review of the eviscerated gut was done and no injuries or signs of hypoxia or necrosis were found. Washing with normal saline and metronidazole was accordingly performed. Reduction of the small gut loop was then done. Thorough exploration of the vaginal vault and its walls revealed complete dehiscence. We accordingly, placed a surgical towel in the cavity to maintain the intestine aside from the surgical area and the performed a wide sharp dissection of the peritoneal membrane laterally and posteriorly, ensuring sufficient space to set a piece of surgical mesh, as evidently this patient had a problem with healing. Closure of peritoneum with PGA 0, a piece of surgical mesh was placed then in the created space and fixed to the wall and connective tissue with PGA 0 interrupted stitches. Vaginal vault is again reviewed and fixed to the mesh with PGA 0 and carefully closed with interrupted stitches. Hemostasis is ensured and vagina irrigated again with normal saline. A gauze pack impregnated with iodine and nitrofurazone was placed. Patient remained on ward and received complete course of broad spectrum and anti-anaerobic antibiotics. No immediate complication occurred and was finally discharged on the 6th postoperative day. Six months of follow up revealed no complications such as pelvic organ prolapse nor mesh related reactions have been reported.

DISCUSSION

Vaginal evisceration is a rare complication after abdominal hysterectomy. Bowel evisceration, outside the introitus of the vagina has been associated with life threatening sequelae such as peritonitis, bowel injury and necrosis and sepsis among others.¹ This surgical event occurs most frequently related to vaginal hysterectomies (63%) followed by abdominal (32%) and laparoscopic (5%).⁵ A Mayo Clinic study between 2004 and 2008 reported a 4.1% incidence of vaginal dehiscence after

robotic closure of vaginal cuff. 9 cases were operated due to malignancies, 10 cases coitus was the triggering cause, most case occur at a medium of 41 postoperative days and 3 had a recurrent dehiscence needing a second repair, on this series the used a vaginal approach and sometimes combined vaginal and laparoscopic approach.⁶ Hormonal alterations together with atrophies at the level of the female genital apparatus represent a risk factor in the postmenopausal period. Up to 70% of patients with evisceration have some serious associated condition, such as chronic obstructive pulmonary disease, diabetes mellitus, cancer, infectious processes, or alterations in nutritional status (obesity, thinness, and deficiency states, among others).⁴ Steroid medication is also often a history in patients with eviscerations. It has been shown that diabetes can act as a consequence of a delay in phagocytic activity, favors bacterial development, decreases collagen synthesis and cancels healing. Laparoscopic and robotic-assisted hysterectomies are associated with higher rates of vaginal cuff dehiscence and evisceration than are open and vaginal hysterectomies. With the rising prevalence of minimally invasive hysterectomy, gynecologists should know how to manage this rare but potentially serious condition. Urgent laparotomy historically was recommended for management of vaginal cuff evisceration to allow for complete bowel evaluation. More recently, successful outcomes using a less-invasive vaginal or combined vaginal and laparoscopic approach have been reported.² According to Cronin, there are several determining factors that can influence its appearance, both due to a deficient relaxation anesthetic technique during closure and also deficient surgical technique (too tight knots, covering too much tissue on the edges with the stitches, continuous sutures too tight, hasty closures and uneven stitches on the suture line, necrosis caused by extensive electro cautery burns).⁶ Likewise, perioperative complications and in the immediate postoperative period such as intestinal loop perforations, prolonged ileus, cough, and persistent hiccups, will influence the appearance. Also, the size and location of some laparotomy incisions, together with fecal peritonitis, urgent interventions, will be decisive for a subsequent evisceration to exist. Regarding the type of incision and its relationship with this postoperative condition, some studies have noted that evisceration is less frequent after transverse incisions than in median ones, and that they are less frequent in the vaginal region than in the upper part of the abdomen. There is also a direct relationship between the size of the incision and wall failure in the immediate postoperative period. The proposed treatment is surgical, since a quick and timely intervention greatly reduces intestinal morbidity. The pelvic reinforcement with mesh is very successful because it prevents recurrences.

CONCLUSION

The favorable outcome of this case, despite its deficient nutritional status, demonstrates that vaginal route, can be used to treat adequately vaginal evisceration after pelvic surgeries, such as total abdominal hysterectomy, and use

of prosthetic mesh can play an important role in cases like this as it can prevent recurrence. It is also important to point out that the time elapsed between the occurrence of the complication and its resolution is vital to avoid further damage such as necrosis of the eviscerated organ.

ACKNOWLEDGEMENTS

The authors would like to thank all the hospital staffs who were involved in the management of this case.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

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Cite this article as: Ramirez FP, Hakizimana T, Naranjo UA, Fajardo Y, Torres LDLAG. Coitus induced colpo evisceration in a 3-months post hysterectomy patient: an unusual tale in gynecology. *Int J Reprod Contracept Obstet Gynecol* 2024;13:420-2.