Annals of Medicine and Surgery 65 (2021) 102352

Contents lists available at ScienceDirect

Annals of Medicine and Surgery

journal homepage: www.elsevier.com/locate/amsu

Case Report

# Transvaginal evisceration of the small bowel a rare and potentially lethal event, a case report

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ARTICLE INFO

*Keywords:*
Transvaginal evisceration
Bowel ischemia
Emergent surgery

ABSTRACT

*Introduction and Importance:* Evisceration of the small bowel through the vagina is an extremely rare condition and a life-threatening surgical emergency. Complications associated with this condition include bowel ischemia, abdominal sepsis, and deep vein thrombosis. Therefore, prompt surgical consultation and treatment are crucial as delay in treatment can lead to a grim outcome.

*Case presentation:* We report the case of a 50-year-old female obese patient with a past medical history of uterine surgery. During a cough episode, she experienced sudden transvaginal evisceration that required emergent surgery. Thankfully she fully recovered and is doing well.

*Discussion and conclusions:* Transvaginal evisceration is a life-threatening and extremely rare pathology; it requires urgent diagnosis and surgical intervention since bowel viability can be compromised. During these rare events, interdisciplinary surgical cooperation is vital to obtain the best possible outcome for patients.

## 1. Introduction

The evisceration of the small intestine through the vagina is an uncommon event [1,2]. However, it can turn quickly into a fatal one since complications can become deadly if there is a delay in treatment [3]. Due to its rarity, the medical team can confuse it and fail to recognize it in time [2,3]. Time is essential in this pathology; therefore, the medical team must be prepared to face such a critical event [1,4].

We present the Case of a 50-year-old female; transvaginal evisceration was detected and treated. After small bowel resection, she completely recovered and is doing well on follow-ups.

This manuscript adheres to with the SCARE 2020 criteria [9].

## 2. Case report

Patient is an obese 50-year-old female patient with past medical history of high blood pressure, and arthritis. Two months before admission, she was diagnosed with severe uterine prolapse, which required a laparoscopic sacrohysteropexy and treatment for a subsequent surgical site infection at that time. She was discharged and remained stable but under close follow-up.

Suddenly she experienced severe sudden abdominal pain; she described it as the worst pain of her life and appeared after a coughing episode; thus, she was immediately transferred to the emergency room.

On clinical examination, a tachycardic patient was encountered; she had diffuse pain on her lower abdomen with tenderness. Examination of the perineum revealed a prolapse of the small intestine protruding through the vagina. About 45 cm of edematous and ischemic bowel was recognized (Fig. 1A and B). With these findings, surgical consultation was decided and after prompt evaluation by the attending, emergent surgery was decided.

At laparotomy, an attempt was made to reduce the small bowel with

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https://doi.org/10.1016/j.amsu.2021.102352
Received 30 March 2021; Received in revised form 14 April 2021; Accepted 24 April 2021
Available online 29 April 2021

an abdominal and vaginal approach; however, the bowel was too edematous. After many unsuccessful attempts, we weren't able to reduce them into the abdominal cavity; thus, we resected the 45 cm of necrotic ileum with mechanical staples that protrude through the vagina (Fig. 2). After this, the two intestinal stumps were easily reduced into the abdomen. A side-to-side anastomosis utilizing mechanical staples was completed and the enterotomy was closed in a single-layer fashion with an absorbable suture. (Polydioxanone, Ethicon Inc, J&J, New Brunswick, NJ) A 5 cm defect in the retro uterine region (Douglas pouch) was identified and successfully repaired with a non-absorbable suture. (Prolene, Ethicon Inc, J&J, New Brunswick, NJ) (Fig. 3).

Transvaginal evisceration of the small bowel was the final diagnosis.

Her postoperative course was mostly uneventful. Postoperative ileus was detected on her 3rd postoperative day and was overcome without complications. Sips of liquids were initiated on the fourth postoperative day and was followed by a full diet. She was discharged on her fifth postoperative day. On follow-ups, the patient is doing well without complications.

## 3. Discussion

Transvaginal intestinal prolapse is a rare and potentially lethal surgical condition [1]. Since the first report by Hypernaux et al., in 1864, fewer than 150 cases have been published in the English Literature [1,2]. It is a unique surgical emergency that usually appears on postmenopausal women (70%) or women who had previous vaginal or uterine surgery (63%), which creates decreased vascularization and vaginal wall atrophy [2,3]. Pre-menopausal women can also be affected; however, it's rarer and tends to be associated with vaginal trauma or sexual activity [4]. Our patient was a postmenopausal woman with a past medical history of uterine prolapse, which may have aided in weakening the vaginal wall.

Most risk factors are associated with weakening the abdominal and vaginal wall, including older age, vaginal and perineal surgery (especially hysterectomy), obesity, increased intraabdominal pressure, constipation, cough, and radiotherapy [1,2,5]. As it was found in our patient. The medical team must have high clinical awareness to clearly distinguish between vaginal prolapse, uterine prolapse, cystocele, and rectocele [6]. Patients usually present with abdominal pain, vaginal bleeding, and a vaginal mass; the vaginal evisceration is traditionally associated with an increase of intraabdominal pressure induced by coughing, defecating, or falling [1,6]. In our Case, our patient experienced severe abdominal pain after coughing, and a transvaginal evisceration was discovered.

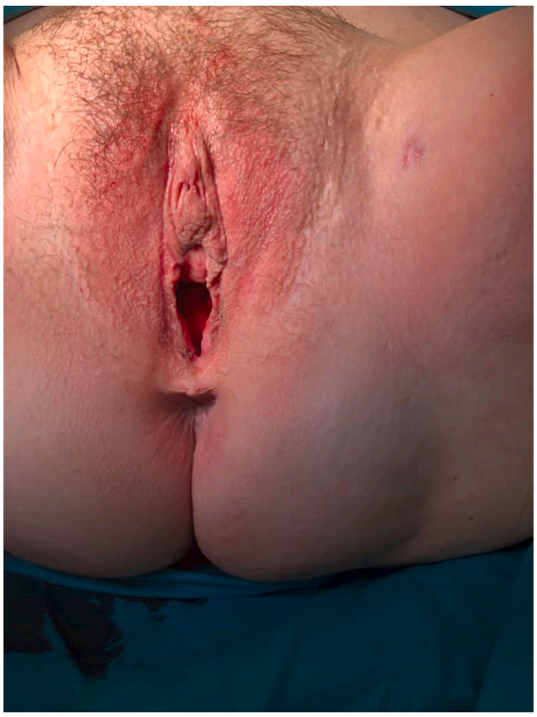
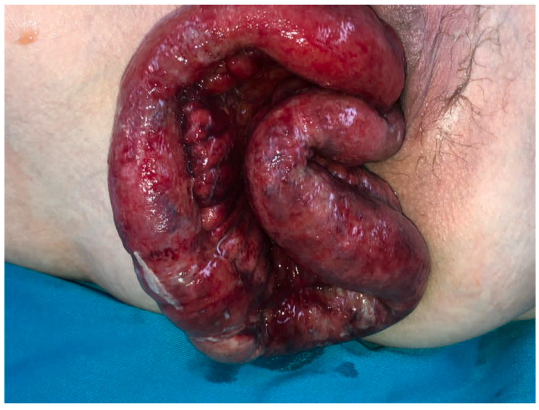


**Fig. 2.** Vagina after reduction and repair.



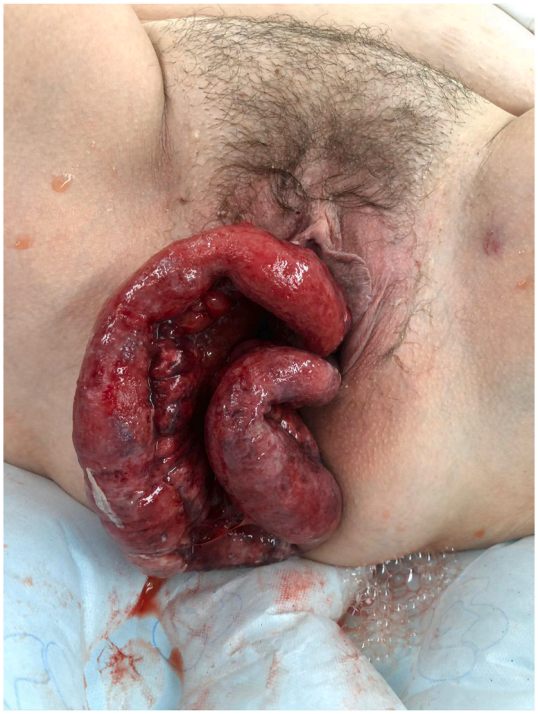


**Fig. 1.** ASmall bowel protruding through the vagina.
Figure 1BThe small bowel is necrotic and edematous.

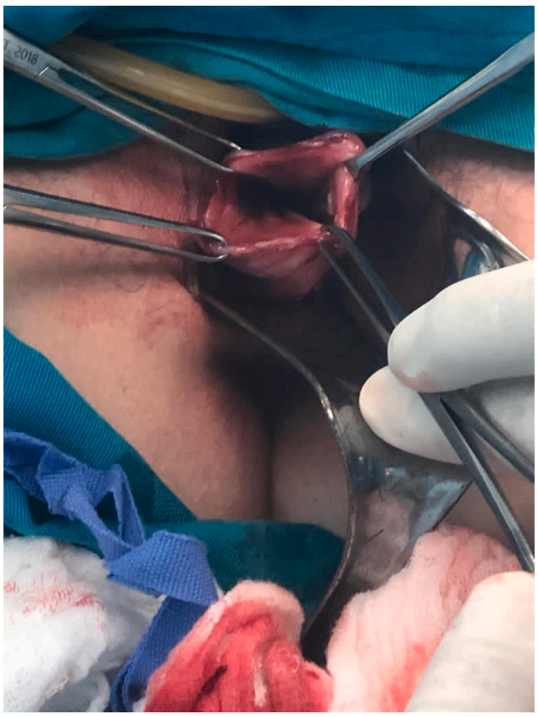


**Fig. 3.** 5 cm defect in the retro uterine region.

When transvaginal evisceration occurs, urgent surgery is required, as it is a potentially life-threatening (up to 8% mortality) and distressing event [7]. It can eventually lead to gut injury, gangrene, gut resection, sepsis, and death [1,3]. The ileum is generally involved. Although, the omentum, epiploic appendices, or salpinx can be affected as well [1,8]. When the small bowel is compromised, a prompt reduction is necessary, and the bowel must be examined to evaluate its vitality [2,8]. Transvaginal and transabdominal approaches can be used nonetheless; if any doubts are surrounding the bowel, resection and anastomosis should be completed, followed by the repair of the vaginal defect [1,9]. As it was completed in our Case.

## 4. Conclusions

Transvaginal evisceration is a potentially life-threatening and extremely rare pathology; it requires urgent diagnosis and surgical intervention to prevent small bowel ischemia. Surgeons will rarely come across such unusual pathology; nonetheless, they must be ready to face these extraordinary events and provide the high-quality surgical care expected from us.

## Ethical approval

We have written permission from our ethics committee.

## Sources of funding

No funding

## Conflicts of interest

None.

## Author contribution

JN, GA and AS analyzed and interpreted the patient data. EC, CA and MA were a major contributor in writing the manuscript.HG and JZ revised the manuscript and reviewed all the available data. All authors read and approved the final manuscript.

## Guarantor

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## Patient perspective

The patient felt scared at first and was worried about her pathology, as she saw her intestines through her vagina, nonetheless she was grateful after everything was resolved.

## Declaration of competing interest

None.

## Acknowledgments

None.

## Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.amsu.2021.102352.

## Provenance and peer review

Not commissioned, externally peer-reviewed.

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