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Spontaneous Transvaginal Small Bowel Evisceration in a Postmenopausal Women

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Abstract: ***Spontaneous evisceration through the vagina was first described in 1907 by McGregor.1 To date, only eighty-five cases of transvaginal small bowel evisceration have been documented worldwide.1, 2 The primary risk groups for spontaneous vaginal evisceration include postmenopausal women, 1, 3–7 vaginal surgery cases, 1, 8–10 multiparae, 11 and women of older age.2, 3. In postmenopausal woman, transvaginal evisceration is frequently associated with increased abdominal pressure, 1 vaginal ulceration due to severe atrophy, and straining at stool.6, 8. Vaginal evisceration is a medical emergency that requires prompt recognition and immediate surgical intervention.1 The associated mortality rate is 5.6 percent; however, the incidence of morbidity is higher3, 8 when the bowel has become strangulated through the vaginal defect. Here, we report a case of Spontaneous transvaginal small bowel evisceration in a postmenopausal women and highlight the risk factors, clinical presentation, and treatment options for this rare gynaecological emergency.***

Keywords: Postmenopausal women, evisceration, vaginal vault repair

1. Introduction

Spontaneous evisceration through the vagina was first described in 1907 by McGregor.[1] To date, only eighty-five cases of transvaginal small bowel evisceration have been documented worldwide.[1, 2] The primary risk groups for spontaneous vaginal evisceration include postmenopausal women, [1, 3–7] vaginal surgery cases, [1, 8–10] multiparae, [11] and women of older age.[2, 3]

In postmenopausal woman, transvaginal evisceration is frequently associated with increased abdominal pressure, [1] vaginal ulceration due to severe atrophy, and straining at stool.[6, 8]

Vaginal evisceration is a medical emergency that requires prompt recognition and immediate surgical intervention.[1] The associated mortality rate is 5.6 percent; however, the incidence of morbidity is higher[3, 8] when the bowel has become strangulated through the vaginal defect.

Here, we report a case of Spontaneous transvaginal small bowel evisceration in a postmenopausal womenand highlight the risk factors, clinical presentation, and treatment options for this rare gynaecological emergency.

2. Case Report

A 75-year-old postmenopausal female presented to the casuality with complaints irreducible mass protruding spontaneously per vagina during act of defecation for the past 6 hours .No past history of any abdominal or vaginal surgeries. Patient gives history of constipation from last 1 year.

At the causality, patient was conscious and oriented .On examination pulse rate of 94bpm and blood pressure recording of 130/88 mm of Hg. On examination, about 30 cms of small bowel was found protruding through the vaginal introitus [Figure 1]. The bowel loops were congested andit was not reducible. Systemic examination was completely normal. Abdominal examination also normal. Hematological and biochemical investigations were normal. Exploratory laparotomy was done after stabilizing the patient which showed 30 cms of jejunal loops prolapsing through pelvic floor and vaginal introitus. Bowel loops were congested but found to be viable after reduction into peritoneal cavity. Pelvic floor was repaired and vaginal vault repaired with prolenesututres. [Figure 2]. Postoperatively patient had uneventful recovery. Follow-up after 1 month was normal.

3. Discussion

Transvaginal bowel evisceration is a rare, life-threatening situation needing immediate attention. As reviewed by Kowalski et al. transvaginal bowel evisceration is more commonly seen in elderly postmenopausal women.[2] This may be attributed to the fact that postmenopausal vaginal wall is thin, scarred and shortened with diminished vascularity which makes it more prone to rupture.[4] The risk factors for evisceration for premenopausal women include trauma due to coitus, rape, obstetric procedures, or foreign-body insertion and postmenopausal women risks are older age, previous vaginal surgery, enterocele repair, a sudden increase in intra-abdominal pressure (i.e., straining, coughing, defecating) and medical conditions which predispose to inadequate wound healing.[1, 2, 5, 6] Other risk factors include history of irradiation, abdominal or vaginal hysterectomy, perinealproctectomy and is rarely known to occur spontaneously.[1, 2, 6, 7, 8, 9] Spontaneous rupture is commonly occurs at the posterior fornix.[5]

The plausible explanation for this event can be attributed to any departure from the normal state in the maintenance of normal pelvic pressure distribution. The upper vaginal axis

in normal circumstances is directed parallel to the levator plate and perpendicular to the direction of intra-abdominal pressure. Alteration in the above-mentioned anatomical relationship during surgery may alter the normal axis of the vagina; hence the vagina assumes a more vertical position. As a result, raised intra-abdominal pressure would now be directed at an axis parallel to the vaginal vault, thus making it vulnerable to rupture.[3]

Bowel evisceration is a grave surgical emergency. The mortality reported with this condition is 6-10% which is attributed mainly to septicemia and thromboembolism. Bowel infarction, infection, ileus and deep vein thrombosis are other known complications of transvaginal bowel evisceration. Early recognition and urgent surgical intervention is imperative for adequate management, to lessen the associated morbidity and mortality and also to preserve the bowel viability.[2, 3, 5, 6] Emergency management of bowel evisceration consists of few vital elements which include stabilization of the patient, intravenous fluid replacement therapy, cleaning and packing the bowel with moist saline sponges, early prophylactic antibiotic cover for gastrointestinal flora, and immediate surgical repair and controlling hemorrhage with vaginal packs.[4]

Surgical management necessitates an abdominal approach with pelvic laparotomy through a midline incision. The bowel is retrieved into abdomen and nonviable segment is excised and reanastomosis performed. Definitive treatment of transvaginal bowel evisceration is achieved by correction of the pelvic floor defect by pelvic floor enforcement at the time of the initial surgery. The vaginal defect should be examined. Necrotic tissue, if present, around the vaginal defect and stumps of the supporting ligaments should then be excised and the defect closed with absorbable suture material.[8] On the contrary, Nichols and Randall suggested that delayed evaluation of the pelvic support followed by appropriate repair is preferable to immediate repair.[10] There is also a mention in one of the literature where it was advised to leave the defect open for secondary suturing transvaginally if the edges are not healthy enough to support healing.[8] However, we recommend early management as it shows better results. In recent literature the use of omental patch has also been illustrated with Narducci et al. describing a successful laparoscopic and vaginal approach with the use of omental patch.[1, 9]

The principles involved in prevention of such a dreaded condition include:

a) Restoration of normal vaginal axis;
b) anastomosis of the stumps of the supporting ligaments of the pelvis to the angles of the vagina;
c) preservation of vaginal length and
d) maintenance of vaginal integrity with application of estrogen if necessary.[2]

Spontaneous transvaginal bowel evisceration, although uncommon, can occur as seen in this case, simultaneous vault fixation and reinforcement of pelvic support at the time of surgery may prevent its occurrence in future.

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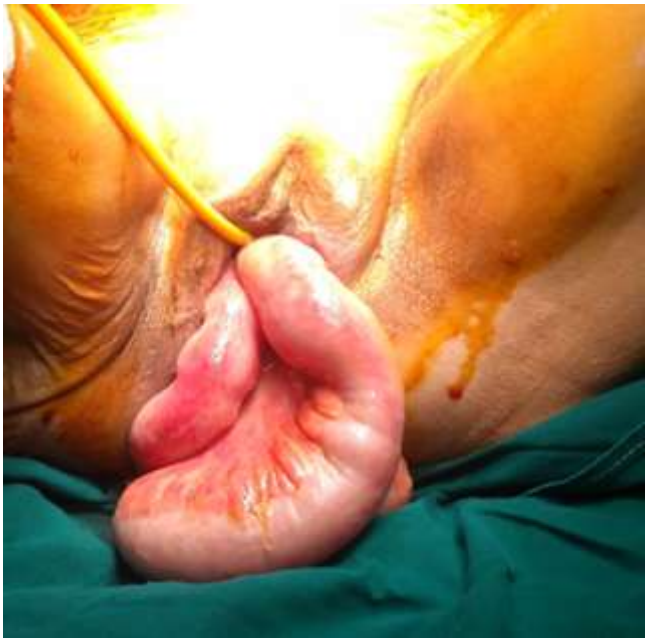

Figure 1: Congested small bowel loops seen protruding through the vaginal introitus in a 75-year-old woman

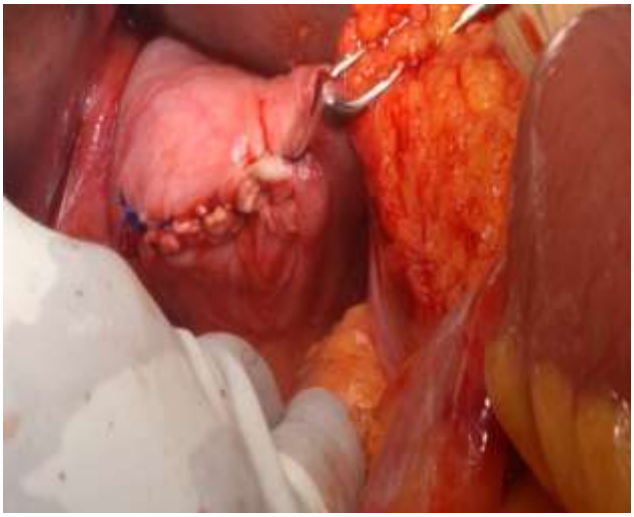

Figure 2: Intraoperative picture of vaginal vault repair