Non puerperal uterine inversion secondary to leiomyoma uteri

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Abstract

Background: Non Puerperal Uterine inversion is very rare. Only 150 cases have been reported in the literature over a period of 126 years.
Methods: This is a case of a 44yr old grandmultiparous woman who developed a protrusion from her vagina, after earlier diagnosis of Leiomyoma uteri and scheduled for hysterectomy. She presented in a poor clinical state with anaemia and a protruding mass per vaginam after defaulting surgery.
Results: She subsequently had vaginal hysterectomy after an initial dilemma as to the preferred route of surgery with minimal morbidity.
Conclusion: Non-puerperal uterine inversion is a rare gynaecological condition and could present as an emergency. Decision as to the extent and route of surgery, should be clear to the surgeon to avoid unnecessary morbidities.

Keywords: Puerperal, uterine inversion, uterine leiomyoma

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Introduction

Uterine inversion can be broadly classified into puerperal and non puerperal. Puerperal uterine inversion is seen in obstetric settings. Non Puerperal Uterine inversion is very rare.[1,2,3] Non puerperal uterine inversion usually presents in gynaecological settings through the Gynaecological Emergency unit 150 cases have been reported in the literature over a period of 126 years all over the world.[4,5]

The aetiology of non puerperal uterine inversion can be benign or malignant. The commonest causes are usually benign, majorly due to uterine leiomyoma and endometrial polyp. Malignant causes of uterine inversion include Leiomyosarcomma and Rhabdomyosarcomma.

Case Report

A 44 year old Para $5+^{0}$ (4 alive) presented with a 21 day history of a mass protruding from her vagina and vaginal bleeding of one day duration. She had a history of recurrent episodes of an oval shaped mass protruding from the vagina which was painless in nature and occurred when straining. It was initially reducible but became irreducible in the last 48 hours preceding presentation. There was associated vaginal bleeding with flooding, and passage of blood clots.

She had previously been diagnosed to have symptomatic uterine fibroid with pedunculated endometrial fibroid polyps and was scheduled for a total abdominal hysterectomy, but defaulted on financial grounds. There was an associated dragging lower abdominal discomfort, lower abdominal pain preceding periods and menorrhagia in the last one year. She also noticed an offensive yellow coloured vaginal discharge with history of dyspareunia.

Prior to the onset of symptoms, she had a regular menstrual cycle of 25-27 days and her menstrual flow was for 3 days with no menorrhagia or dysmenorrhoea. She had five uncomplicated vaginal deliveries between 1998 and 2002. On clinical examination, she was pale, anicteric, afebrile, not dehydrated with no pedal oedema. Her pulse rate was 90 beats per minute with a Blood pressure of 100/70 mmHg.Her chest was clinically clear.

On abdominal examination, there was no tenderness, organomegaly or abdomino-pelvic mass. On pelvic examination, a yellow coloured, pear shaped, fleshy mass which did not bleed on contact was seen protruding from theintroitusand occupying the medial aspects of the upper thigh. (Figure 1).The mass obstructed digital vaginal examination, and incorporated the uterus. An assessment of non puerperal uterine inversion secondary to Leiomyoma was made. Her packed cell volume was 21%, HIV 1 & 2 screening was negative. Chest x-ray and E.C.G done showed no anomaly. Her fasting blood sugar and kidney function were within normal range.

The patient was transfused with 3 units of packed cells and commenced on intravenous antibiotics and counselled for surgery. An initial examination under anaesthesia(EUA) revealed a completely involuted uterus, with multiple myoma, with a fundal submucous component. The mass was highly haemorrhagic, and the patient was counselled for total hysterectomy via

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the abdominal route. The mass was difficult to approach via the abdomen, because the entire uterus and fallopian tube had been pulled into the completely involuted uterus outside the vagina.

She had the hysterectomy done via the vaginal route for which histology corroborated the clinical diagnosis of Leiomyoma uteri. The patient had two units of blood transfused intraoperatively

The patient was continued on postoperative antibiotics, analgesics and intravenous fluid. The post-operative period was uneventful. She was discharged after 7 days with a postoperative packed cell volume of 25% and placed on fesolate.

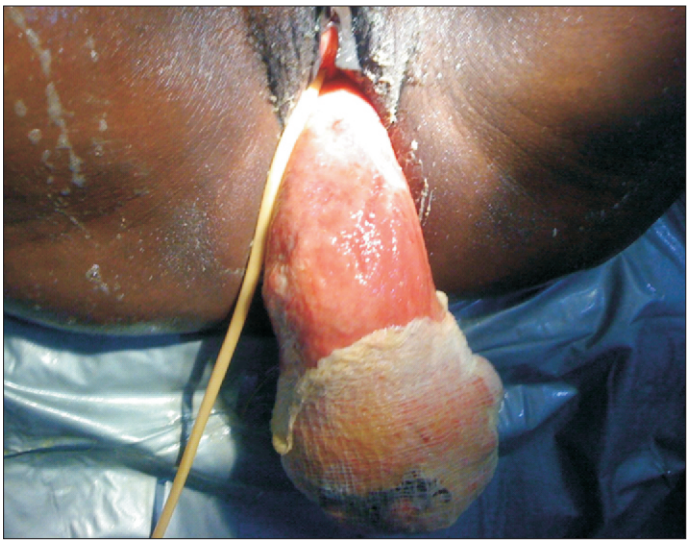

Figure 1: Mass just before commencement of surgery

Discussion

Uterine Inversion can be classified into Puerperal and Non-puerperal subtypes. Synonyms for this classification is Obstetric subtype and Gynaecological subtype.[4] Non-puerperal Inversion of the uterus is a rare occurrence and could pose a diagnostic challenge. A literature source quoted that about 150 cases has been reported to date[5]. Non-puerperal uterine inversion occurs mostly in women who are above 45 years of age.[6] The patient presented in this case report was 44 years of age as at the time of presentation. Most cases of Non puerperal uterine inversion are usually chronic but acute inversion may occur. The case presented in this report appears to be of chronic onset, due to the fact that the patient has been a known patient of the unit being evaluated for symptomatic Leiomyoma uteri. Acute Non puerperal inversion of the uterus is extremely rare and diagnostic dilemma may arise.[7]

The patients with Non-puerperal uterine inversion manifest symptoms of lower abdominal pain, protruding mass from the vagina and vaginal bleeding. Some patients may present with urinary symptoms. In this case report, the patient presented with symptoms of protrusion from the vagina and vaginal bleeding. Clinical suspicion of Non-puerperal uterine inversion is made when a mass is palpated in the vagina and the fundus of the uterus is not palpated on digital bimanual examination. In the patient presented, the entire mass, including the uterus was outside the perineum, the fundus of the uterus was not palpable per abdomen.

The morbidity and mortality suffered by patients with Non-puerperal uterine inversion is related to the severity of haemorrhage, the speed of diagnosis and the efficacy of treatment[8].In this case report, the patient presented with features of anaemia and had to be transfused before surgery.

Clinical diagnosis can be corroborated with radiological investigations such as Pelvic ultrasonography and Magnetic resonance imaging techniques[9]. In this case report, patient had earlier pelvic ultrasound result that suggested Uterine Leiomyoma. The option available for the management of patients with Non puerperal uterine inversion is influenced by the desire for further child bearing and the state of the uterus. Uterine conservation is desired in individuals who are of low parity and desirous of further child bearing. Theoptions available for uterine conservation is to revert the inversion, manually through a digital examination under anaesthesia. Another option is to infuse saline into the cavity of the uterus to reverse the inversion. In cases where gangrene of the uterus may have ensued, preservation of the uterus may be unlikely, despite desire for further childbearing. In this case report, the patient is of a high parity and already scheduled for hysterectomy.

The route for hysterectomy may be abdominal or vaginal. The vaginal route was initially initiated but abandoned due to the haemorrhage from the mass but the abdominal route was impossible because of difficulty in mobilizing the uterus back to the abdomen. Hysterectomy was eventually expedited via the vaginal route. The challenge with vaginal hysterectomy in an inverted uterus is that the uterine pedicles are situated "inside out". The haemorrhagic nature of the mass over the uterus and the indecision as to the route of surgery lead to significant intraoperative blood loss that necessitated blood transfusion. Post-operative specimen should be sent for histology and results retrieved because some malignancies like Leiomyosarcomma and Rhambdomyosarcomma form aetiological basis for Non-puerperal uterine inversion. In the case report, Uterine Leiomyomma was responsible for the condition.

Conclusion

Non-puerperal uterine inversion is a rare gynaecological condition and could present as an emergency. Decision as to the extent and route of surgery, should be clear to the surgeon to avoid unnecessary morbidities.

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