Case Report/Caso Clínico

Non-puerperal uterine inversion associated with a large submucous myoma
Inversão uterina não puerperal associada a mioma submucoso volumoso

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Abstract

Non-puerperal uterine inversion is a very rare condition whose incidence cannot be estimated. Possible causes include uterine myomas, uterine sarcomas, endometrial cancer and benign polyps, though it may be idiopathic. Only exceptionally it is diagnosed in women younger than 45 years and when it happens, it is mostly associated with malignancy.

We present a case of a 32-year-old nulliparous woman with uterine inversion due to a large submucous myoma. Diagnosis was made only intraoperatively and the patient underwent total hysterectomy.

Preoperative diagnosis of non-puerperal uterine inversion requires a high grade of suspicion, and this case highlights the need to keep it in mind when a large submucous myoma is present.

Keywords: non-puerperal; uterine inversion; myoma

INTRODUCTION

Uterine inversion is an uncommon clinical problem occurring in approximately 1: 3500 deliveries[1]. Non-puerperal inversion is so rare that there is not an accurate estimation of its incidence. A case of non-puerperal uterine inversion due to uterine myoma is presented.

CASE REPORT

A 32-year-old nulliparous woman was referred to our institution due to hypermenorrhea and methrorragia. Vaginal examination revealed a large mass (approximately 7cm) protruding through a dilated thin cervix into the upper third of the vagina. Transvaginal ultrasound showed a submucous vascularized myoma measuring 70x55x80mm arising from the posterior wall of the uterus and an intramural, submucous myoma of the posterior wall with 30x29mm. Treatment with GnRH analogs was performed over 2 months as an attempt to reduce the mass and undertake a conservative surgical treatment.

Two months after completing the treatment the patient was admitted to the emergency room with extensive vaginal bleeding (hemoglobin 5,3 g/dL) and hypogastric pain. Vaginal examination showed a large solid smooth mass consistent with a myoma occupying the vaginal cavity up to the introitus. Vaginal myomectomy was performed

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using an electrosurgical scalpel. Pathology confirmed a 70x70x55 mm leiomyoma with a cut surface area of 55 mm (Fig.1). On the first postoperative day transvaginal ultrasound revealed what seemed to be another 40x40mm submucous myoma filling the whole uterine cavity (Fig.2).

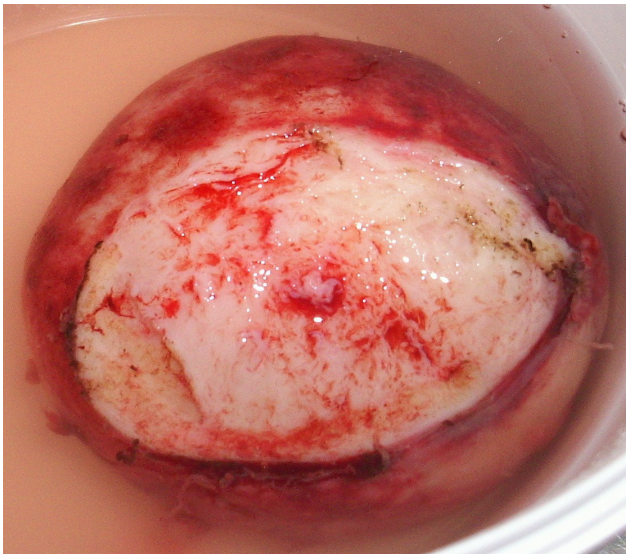

Figure 1: Myoma after vaginal myomectomy. A large cut surface can be seen.

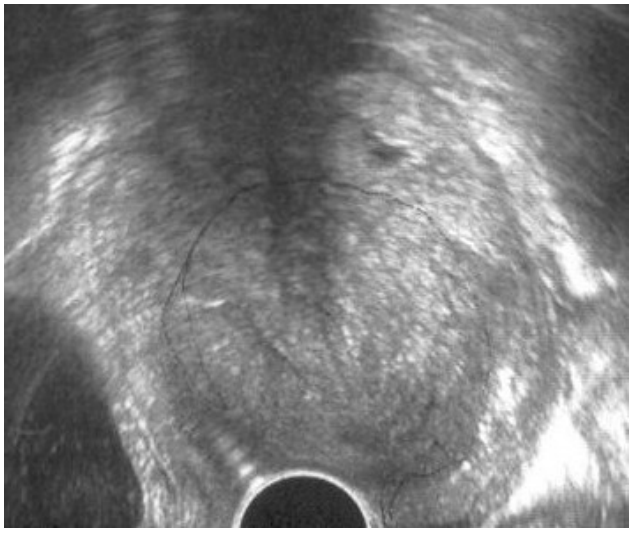

Figure 2: Transvaginal ultrasound performed after vaginal myomectomy. Signs of uterine inversion could be seen.

She was discharged without hemorrhage, but 26 days later was re-admitted with massive genital bleeding. On vaginal examination, a 40mm mass was felt and interpreted as another myoma. A conservative surgery was being planned, but the following day severe pelvic pain developed and the patient requested the team to perform a hysterectomy, refusing beforehand any attempts to preserve the uterus. It was clearly stated that hysterectomy would prevent her from conceiving. Nevertheless, she did not authorize any surgical procedure, except hysterectomy.

At laparotomy the uterus was found to be totally inverted through the cervix; the round and ovarian ligaments, as well as the tubes were pulled into the uterus (Fig. 3). Total hysterectomy was performed without reducing the inversion and the post-operative period was uneventful (Fig. 4).

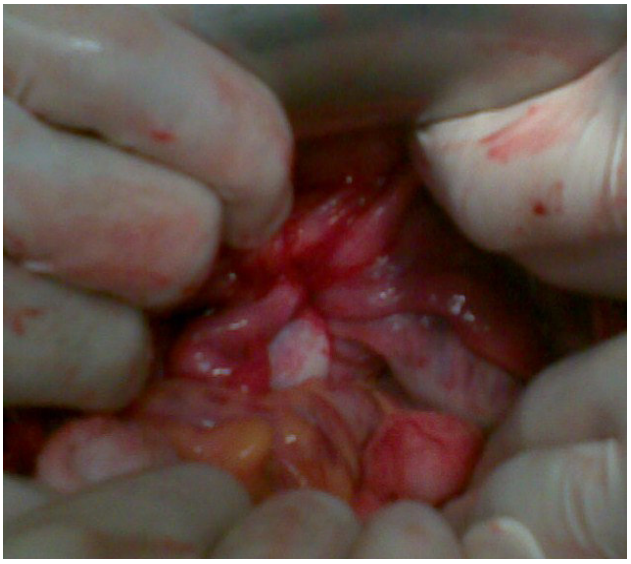

Figure 3: Intraoperative view. Tubes and ovaries were pulled into the uterus.

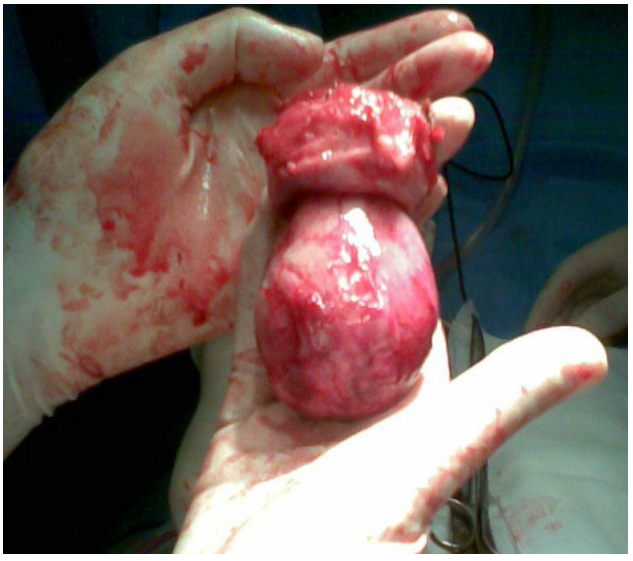

Figure 4: Postoperative specimen.

DISCUSSION

Possible causes of non-puerperal uterine inversion include uterine myomas, uterine sarcomas, endometrial cancer and benign polyps, though it may be idiopathic. Only exceptionally it is diagnosed in women under 45 and when it happens, the most common cause seems to be malignancy[2].

Patients with uterine inversion may present with abnormal genital bleeding, pelvic pain, abdominal discomfort, and a mass filling the vagina [3,4]. Findings that may help the diagnosis are an impalpable fundus on bimanual examination and an invisible cervix after excision of the vaginal mass[5]. Ultrasound may be useful, showing a depression of the fundic area on the longitudinal scan and possibly a "target" or "doughnut" sign of intussusception on transverse images[6-8]. Magnetic resonance imaging may also have a role in the diagnosis of non-puerperal uterine inversion, with the observation of a U-shaped uterine cavity, a thickened and inverted uterine fundus on the sagittal section, and a "bulls-eye" configuration on the transversal images[9,10]. However, because it is a rare condition this diagnosis is seldom considered and in most cases uterine inversion remains undetected until surgery, as happened with this patient. On retrospective review of the of the ultrasound images acquired after myomectomy (Fig. 2) we realized that sings of uterine inversion were already present. Apparently, uterine inversion progressed until the second admission, and at that time what was felt on vaginal examination and interpreted as being another myoma, was the uterine fundus itself.

Four surgical procedures have been used to reduce the uterus to its correct anatomic position, two by the vaginal route (Kustner and Spinelli procedures), and two by the abdominal route (Huntington and Hultain procedures)[5,11,12]. The reduction is usually performed to become the hysterectomy technically feasible, but it can also permit the conservative management of the uterine inversion, which is particularly important when the woman wants to preserve fertility. In the current case, as the patient refused a conservative treatment and it was technically possible to perform the hysterectomy without uterine reduction, it was not attempted.

Possibly, if the diagnosis had been made on the first admission and a conservative treatment had been proposed at that time, the patient would have accepted it and her fertility could have been preserved. Apparently it was the delay in diagnosis, and hence the relapse of symptoms and readmission that made the patient intransigently refuse other treatment options, as she considered hysterectomy would be the only definitive solution for her problem.

Non-puerperal uterine inversion is a rare condition whose preoperative diagnosis requires a high grade of suspicion, and the present case highlights the need to keep it in mind when there is a large submucous myoma.

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