Uterine inversions of tumor origin in two cases at the Joliot Curie Institute at the Aristide Le Dantec University Hospital Center

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Case report

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Abstract

Introduction

non-puerperal uterine inversions are a rare situation. Indeed, 85% of uterine inversions are puerperal. We report 2 cases observed at the Joliot Curie Institute of the Aristide Le Dantec University Hospital.

Case Presentation

It was about a 39-year-old primigravida and a 47-year-old seventh gestational patient, who had a stage 4 of uterine inversion picture in relation to uterine sarcoma and uterine myoma respectively. The diagnosis was suspected at the clinic due to the absence of palpation of the uterus. Confirmation was made on medical imaging and intraoperatively. Management was radical with a total hysterectomy with bilateral adnexectomy via the vaginal and abdominal routes. However, in the first patient with sarcoma, surgery combined bilateral pelvic lymphadenectomy and was preceded by chemotherapy.

Conclusion

non-puerperal uterine inversion is a rare situation. Its treatment is essentially surgical. However, it is important to look for an etiology and in the case of a tumor to ensure that the mass is a cancer or not because the management and prognosis depend on it.

Introduction

Non-puerperal uterine inversion is an uncommun disease [1]. Indeed, 85% of uterine inversions have puerperal origin [2].

Depending on the severity, four degrees can be distinguished [2]:

- first degree: the uterine fundus is depressed in a "vial bottom" or cup;
- second stage: the uterus is inverted and passes through the external cervical opening;
- third degree: the uterine body becomes intravaginal and can completely externalize;
- fourth degree or total inversion: the vaginal walls participate in the inversion.

We report 2 cases of uterine inversion with tumoral origin observed at the Joliot Curie Institute in Dakar.

Case Presentation

Case 1

It was about a primigravida, primiparous 39 years old woman, without particular pathological background, who had consulted for hydrorrhea.

The clinical examination had found a good general status, an abdominal and pelvic mass going up two fingertips above the umbilicus. The vulva was soiled with serum with the presence of a necrotic mass developed at the expense of the uterus.

Histological examination of a biopsy specimen was in favor of a sarcomatous tumor.

Abdominal and pelvic ultrasonography had found a uterine mass that measured 112mm x 83mm x 78mm with no impact on the upper urinary tract.

The thoracic and abdominal pelvic CT found an uterine tumor prolapsing in the vagina infiltrating the anterior surface of the rectum and pushing the bladder back without any obvious sign of invasion and without any distant metastasis.

Pelvic MRI found a cervical tumor extending to the posterior myometrium.

The diagnosis of uterine sarcoma invading the lower 1/3 of the vagina was retained. After tumor board discussion, chemotherapy was administered without clinical response, followed by surgery including abdominal pelvic lymphadenectomy and bilateral adnexectomy followed by vaginal hysterectomy (Figure 1). At 5 months follow up there was no particularities.

Case 2

This was a 47 years old woman seventh gesture with no particular disease background, who had consulted for abdominal and pelvic pain and metrorrhagia.

Clinical examination revealed a third-degree uterine inversion with a mass appended to the uterine fundus (figure 2A). Histology of the biopsy specimen was in favor of a fleshy bud. At the pelvic ultrasound, the uterus was not visualized. We found a rounded anechoic image with sharp storytellers, located behind the, 5 cm long.

The diagnosis of a type 4 uterine inversion associated with an ovarian cyst was made. Management included a hysterectomy with bilateral adnexectomy in two stages. A stage of abdominal approach with control of ovaries which are aspirated through the inverted uterine hole and a stage of vaginal approach (Figure 2B). Surgical suites were without any complications. Histological examination of the surgical specimen showed a uterine leiomyoma.

Discussion

Uterine inversion is defined as an invagination of the uterine fundus like a "glove finger". It is an exceptional clinical situation, especially outside the puerperal period [3]. Between 1976 and 2014, only fifty-six cases have been recorded in the literature and mainly concerned menopausal women or women over 45 years of age [4]. In our series, we had one patient aged 47 and one aged 39.

The diagnosis is made clinically in patients with advanced stages of uterine inversion. It is more precise in intraoperative period [2].

Several factors are involved in the physiopathology of non-puerperal uterine inversion: uterine tumor located preferentially on the uterine fundus, thin uterine wall, uterine tumors with small pedicle, rapid tumor growth and wide opening cervix [2]. In fact, submucosal myoma is the most found etiology counting for 70 to 85% of cases against 15 to 30% for malignant factors. Between them sarcomas are the most frequent [5].

Hysterectomy remains the preferred treatment and/or in case of 3rd or 4th degree uterine inversion [2]. It can be performed vaginally [3, 6] after careful repositioning of the uterus in its anatomical position [4]. Which is impossible for fixed and malignant lesions for which carcinologic rules such are resection margins and extensive surgery are essential. A laparoscopy-vaginal route association has also been described by some authors such as Auber et al [7] and Komorek et al [2].

Conclusion

Non-puerperal uterine inversion is a rare situation. Its treatment is essentially surgical. However, it is important to look for an etiology and in the case of a tumor to ensure that the mass is a cancer or not because the management and prognosis depend on it.

Declarations

Conflicts of interest:

none

Informed consent

write informed consent was obtained from the patients for their anonymized information to be published in this article

Ethics approval and consent to participate

Patients confidentiality is protected according to our local institutional ethic committee board considerations: “Comité d’éthique institutionnel du département de chirurgie et spécialités” No CEI-DPT-CHIR-2020-006 / August 1st 2020 “retrospectively”.

Consent for publication

Patients were informed that data concerning the case would be submitted for publication. They agreed to this. The study followed our hospital investigation guidelines.

Availability of data and material

our data are available in the archives of the “Institut Joliot Curie” of teaching hospital of Aristide Le Dantec. The datas used during the current study are available from the corresponding author on reasonable request. We authorize the editorial team of World Journal of Surgical Oncology to publish them according to the international rules in force.

Competing interests:

None declared

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None

Authors' contributions

Dr S. KA made the study design and write the paper. All authors were involved in the patient’s management: Dr S. KA, A. DIAKHATÉ, D. DIOP for diagnostic; Dr S. KA, A. DIAKHATÉ, D. DIOP, OR SOME, for surgery; A.K. DIALLO, M BAH for anatomopathological studies; A. DEM for patients’ evaluation and checking the draft of manuscript. They all reviewed and approved the paper.

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Figures

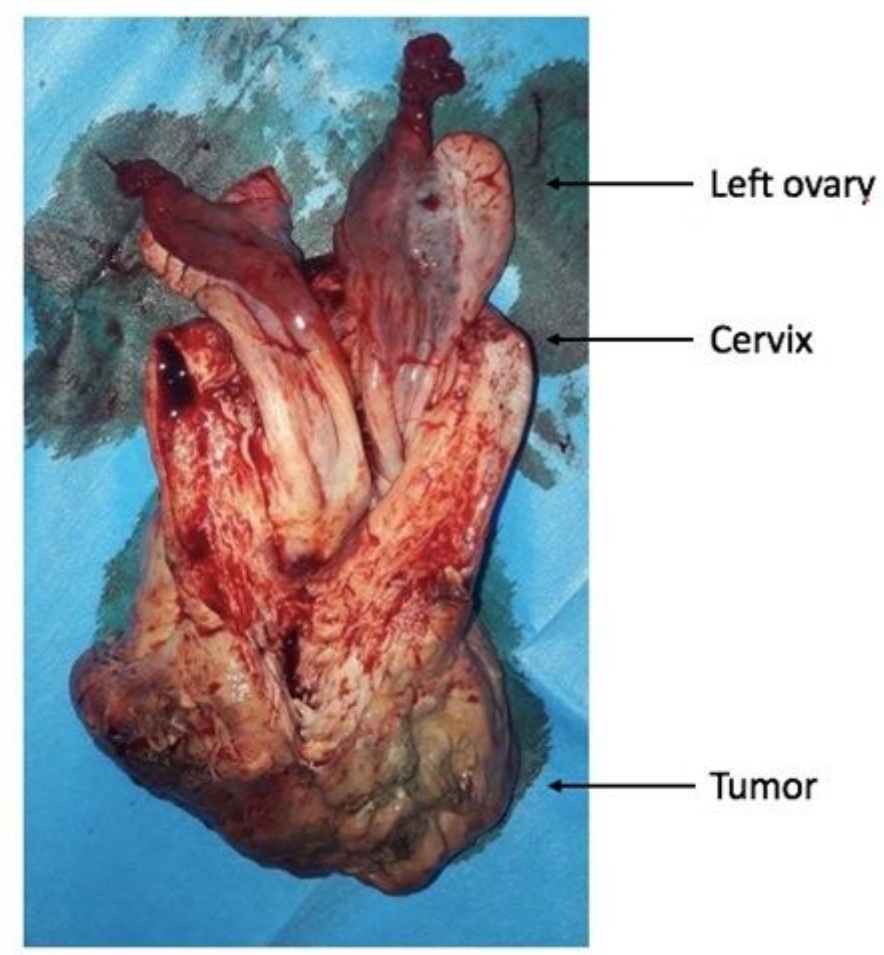

Figure 1

Post-operative specimen of a sarcoma of an inverted uterus

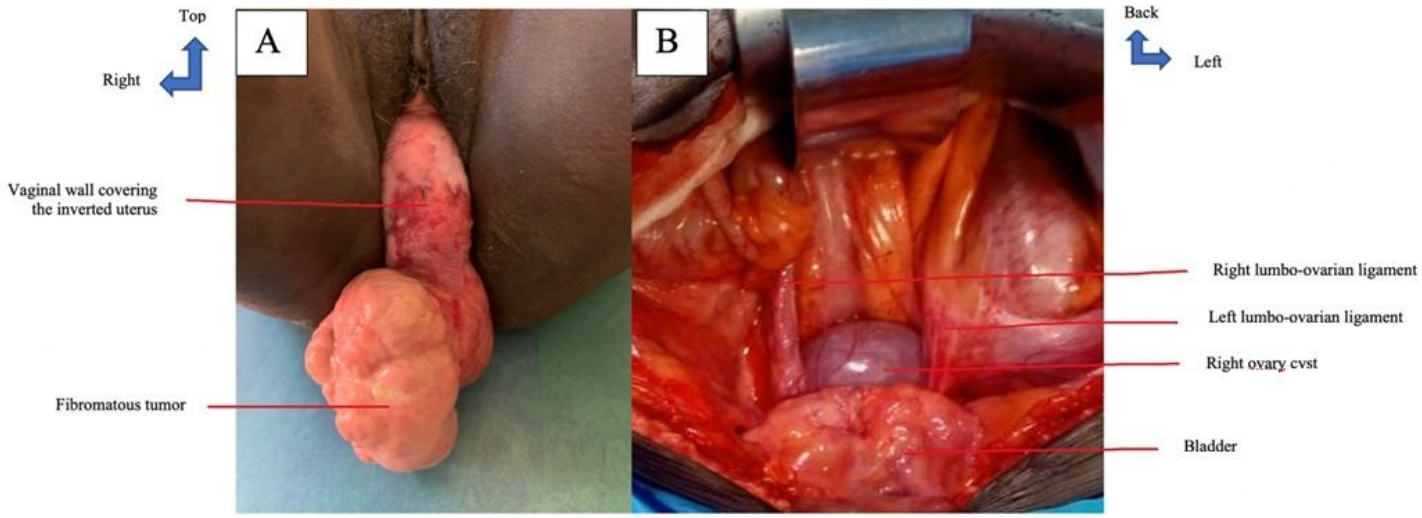

Figure 2

Macroscopic aspect: Perineal view (A); Abdominal operative view (B)