An Interesting Case of Non-Puerperal Uterine Inversion in Cadaver-A Case Report

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ABSTRACT: Uterine inversion is defined as the turning inside out of the fundus into the uterine cavity. It may be acute or chronic. Inversion of the uterus is an extremely rare condition in obstetric emergency and a rarest thing to be seen in a cadaver. It has never been reported so far as a cadaveric finding. During routine dissection in a 65-year-old female cadaver the fundus of uterus was not seen and the uterus was turned inside out. There was prolapse of the fundus through the uterine cervix. Non-puerperal uterine inversion is a rare happening with a very few clinicians encountering it in their entire clinical practice. Since it is a diagnostic dilemma, this case reporting may help in spreading awareness of its occurrence which may save the patient from undergoing a hysterectomy.

Keywords: Bulls eye, Hysterectomy, Inversion, Leiomyoma, Non-puerperal

I. Introduction

Uterine inversion is defined as the turning inside out of the fundus into the uterine cavity. Uterine inversion is categorized as puerperal or obstetric and non-puerperal or gynecological complication. Puerperal uterine inversion occurs as obstetrical emergency due to the mismanaged third stage of labor. Non-puerperal uterine inversion is very rare [1]. It occurs when the uterus acts to expel a sub-mucous leiomyoma with fundal attachment [2,3] but an endometrial carcinoma or sarcoma may also have the same effect.

II. Case Report

During routine dissection of abdomen and pelvis we noted inversion of uterus in an approximately 65 years old female cadaver. There was prolapse of the fundus through the uterine cervix. The fundus was not visible, instead a dimple with a constriction ring was seen posterior to the bladder. The distal ends of both the tubes and the ovaries along with the round ligaments protruded through the constriction ring. The broad ligament was in normal position. Externally the body and cervix uteri also appeared normal.

III. Discussion

Inversion of the uterus is an uncommon condition. It is encountered as an obstetric emergency and is a diagnostic challenge. Uterine inversion may be classified as puerperal or obstetric and non-puerperal or gynecological. Nonpuerperal uterine inversion may be classified into acute or chronic based on the mode of onset and evolution. Acute is more dramatic and characterized by severe pain and hemorrhage whereas chronic is insidious in onset with chronic vaginal discharge and irregular uterine bleeding leading to anemia with a feeling of something coming down the vagina [4]. Chronic variety is of two types, incomplete and complete. It is said to be incomplete when fundus protrudes through the cervix and lie inside the vagina whereas complete is when the whole of the uterus including the cervix are inverted.

Non-puerperal uterine inversion is usually caused by intrauterine tumors. Of the 77 cases reported, 97.7% were associated with tumor and 20% of these tumors were malignant [5]. Leiomyomas are the commonest among the tumors accounting 71.6% of cases, with occasional reports of inversion being associated with uterine neoplasm and endometrial polyps [6]. The major factors that contribute to its occurrence are 1) Tumor attachment site 2) Thickness of the tumor pedicle 3) Tumor size 4) Thinning of the uterine walls 5) Dilatation of the cervix.

Uterine inversions can be classified into four stages:

- Stage 1 - The inverted uterus remains in the uterine cavity
- Stage 2 – Complete inversion of the fundus through the cervix
- Stage 3 – The inverted uterus protrudes through the vulva
- Stage 4 – Inversion of uterus and vaginal wall through the vulva [7,8]
All cases of non-puerperal uterine inversions are usually chronic but 86% present with sudden onset. Rarely if the patient survives such a condition and diagnosis is not previously established the condition may be detected months later, during the evaluation of a bloody discharge. This is called chronic inversion [9,10]. The diagnosis is easier with stage 3 and 4, in which a protruding mass is seen per speculum examination along with an absent uterus in bimanual or per rectal examination. The differential diagnosis of something coming down the vagina should be meticulously dealt with in order to avoid diagnostic pitfall. The diagnosis of chronic uterine inversion is difficult, especially if the inversion is incomplete. The morbidity and mortality associated with uterine inversion correlate with the degree of hemorrhage, the quickness in diagnosis and treatment of choice. It carries a good prognosis if managed timely and in a correct manner. Ultrasound and CT scan have become a necessity in diagnosis. In T2 weighted MRI scans, a ‘U’ shaped uterine cavity and a thickened and inverted fundus on a sagittal image and a ‘bullseye’ configuration on an axial image are signs indicative of uterine inversion [11]. Management of this condition depends on the child bearing desire of the patient. The operative procedures for the treatment of chronic uterine inversion are Huntington and Haultain’s procedure which are abdominal surgeries, Spinelli and Kustner’s operation with vaginal approach[12].

IV. Conclusion

Non-puerperal uterine inversion is extremely rare, representing about one sixth of all inversions [13] such that most of the gynecologists won’t see such a case in their lifetime. This case is reported due to its rare occurrence so that awareness of its occurrence might save the patient from undergoing procedures like hysterectomy.

References


Fig 1: Picture taken from above showing the absence of the fundus of uterus
A- Urinary bladder, B- Uterus, C- Left ovary, D- Right ovary, E- Round Ligament, F- Broad Ligament, G- Sigmoid colon.
Fig 2: Sagittal section of female pelvis showing the dimple with a constriction ring at the site of fundus of uterus. A-Urinary bladder, B-Uterus, C-pelvic brim, D-Common Iliac A.