

Chronic Non-Puerperal Uterine Inversion; Fibromyoma Uteri as a Cause- A Case Report

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Abstract: Non-puerperal inversion of the uterus is a rare clinical problem. Mostly diagnosis is difficult in gynecological cases. In majority of cases fundal fibroid causing inversion is the cause. Treatment depends on the associated pathology and type of the inversion. Here we report a rare case of non-puerperal uterine inversion caused by a large fundal leiomyoma in a 45 year old woman causing heavy vaginal bleeding and urinary retention. In such cases abdominal hysterectomy must be the choice as it is necessary to locate the distal urinary collecting system.

Keywords: Fibroid, non- puerperal uterine inversion, hysterectomy.

INTRODUCTION

Chronic non-puerperal inversion of the uterus is a rare clinical problem [1,2]. It is a diagnostic challenge in gynecology. Non-puerperal inversions are extremely rare with 100 reported cases to date. Takano et al summarized 88 reported cases of non-puerperal uterine inversion; 81 (92%) of these were associated with uterine tumors, of which 20% were malignant [3]. It occurs when the uterus contracts to expel a submucous leiomyoma with fundal attachment [4], which exerts traction force to cause the inversion. Rarely uterine sarcoma may be a cause [5]. When uterine inversion occurs in non-puerperal cases it poses a diagnostic dilemma, where fibroid polyp and third degree uterovaginal prolapse are the initial diagnoses.

CASE REPORT

A perimenopausal 45yr P4L3 female presented with menorrhagia for 5-6 months leading to severe anemia. Patient had retention of urine since 3 days, for which she was catheterized. On examination she was thin built, pulse rate was 98/min and BP 100/70mmHg. There was marked Pallor. Chest was clear. Cardiovascular examination revealed soft systolic murmur due to anemia.

Abdomen was soft on examination. On per speculum examination cervix could not be visualized. A large circumscribed, congested, hemorrhagic mass with smooth glistening surface; probably fibroid was seen occupying whole vagina above the level of introitus. Per vaginal examination revealed that the mass was firm, non-indurated, non-friable, did not bleed on touch.

Cervical rim was felt all around; exact size of uterus could not be appreciated.



Figure 1: Ultrasound image showing large fibroid lower fundus, body and cervical region with degenerative changes

Ultrasound reported a large pedunculated fibroid (measuring 9.4x9.4x9.6 cm, volume- 450cc) compressing lower fundus, body and cervical region with degenerative changes and associated mild to moderate hydronephrosis.

Elective surgery was planned after correction of anemia. Sponge was inserted in vagina to elevate uterus. Vaginal examination under anesthesia revealed a fibroid occupying whole vagina above the level of introitus, firm, nonindurated, not friable, did not bleed on touch. Cervical rim was felt all around; exact size of uterus could not be appreciated. In view of fundal fibroid with incomplete uterine inversion abdominal

approach was decided. Abdominal hysterectomy was appropriate for her as she was a perimenopausal woman with no desire to future fertility.



Figure 2: Large fibroid occupying whole vagina above the level of introitus.



Figure 3: inverted fundus with dimpling in the centre. Tubes are prolapsing inside the dimple. Note overriding bladder over the prolapsing part of uterus.



Figure 4: Tarry coloured uterine blood came out from dimple of uterus.

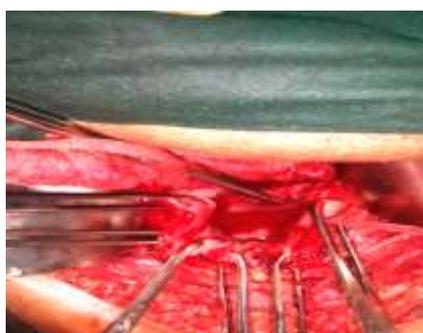


Figure 5: Roomy vagina left after hysterectomy.



Figure 6: Fundal anterior wall submucous sessile fibroid chronic inversion of uterus. Note distended cervix and vagina.

Intra-operative findings

Uterus was chronically inverted; dimpling was noticed, measured approximately 10 week size. Uterus was found to be sitting over prolapsed mass in vagina. Bladder was advanced and densely adherent over prolapsing fibroid. It was found to be overriding the tumor presenting as a hood. Both tubes and ovaries were prolapsing in the dimple of uterus. Vagina was stretched over mass and was thinned out.

We put a higher incision to separate bladder as proper uterovesical reflection could not be made out. Bladder separated with difficulty. We inserted an artery forceps in the dimple of fundus. Tarry colored uterine blood came out. Total abdominal hysterectomy with bilateral salpingoophorectomy was done. We remained above the level of attachments of uterosacrals as cervical rim and upper vagina were grossly stretched over this fibroid of fetal head size. Left out vagina after hysterectomy was roomy. Vault was closed abdominally followed by abdominal closure. On gross examination it was fundal anterior wall submucous sessile fibroid approximately measuring 10 x 10cm, causing chronic inversion of uterus. This mass has distended cervix and was protruding in the vagina.

Her post operative recovery was uneventful. Self retaining catheter kept for 72hrs. Patient was discharged on 8th post operative day in satisfactory condition. On follow up she was doing well. Histopathology confirmed leiomyoma uteri and benign nature of the hysterectomy specimen.

DISCUSSION

Based on the onset and evolution non-puerperal uterine inversion can be classified into acute and chronic. Acute is more dramatic and characterized by severe pain and hemorrhage. Chronic is insidious in onset with chronic vaginal discharge and irregular uterine bleeding leading to anemia and feeling of something coming down the vagina. Chronic variety is of two types, incomplete and complete. It is said to be incomplete when fundus protrudes through the cervix

and lying inside the vagina and complete in which whole of the uterus including the cervix are inverted. Vagina may also be involved. The major factors that contribute to its occurrence are Tumor attachment site, thickness of the tumor pedicle, tumor size thin uterine wall, dilatation of the cervix.

The present case was chronic non-puerperal uterine inversion due to a growing submucous myoma. Symptoms associated with non-puerperal uterine inversion are vaginal bleeding, vaginal mass, thin bloody foul smelling discharge, lower abdominal pain and urinary disturbances, pressure in vagina or something coming out of vagina. Our patient presented with heavy vaginal bleeding with resultant anemia and retention of urine. Uterine inversion is suspected when a tumor is palpable in the vagina but the uterine fundus is not palpable by a pelvic examination. In the present case extruded fibroid was observed in the vagina but above the introitus and pelvic examination was not remarkable. In chronic cases, diagnosis is difficult. Mostly the initial diagnosis of fibroid polyp or third degree uterovaginal prolapse is made. On Bimanual palpation the fundus or body of uterus cannot be appreciated. EUA (examination under anesthesia) is confirmatory [6], where inversion cup at fundus can be recognized. In many cases the diagnosis was not recognized until the inverted body of the uterus was amputated and the peritoneal cavity opened in an attempt to remove what was thought to be a submucous myoma.

Ultrasound in such cases shows the uterus appearing as a “target sign” with hyperechoic fundus surrounded by a hypoechoic rim, representing fluid within the space between the inverted fundus and the vaginal wall. MRI and CT scan have been shown to be useful diagnostic tools [1, 7]. MRI can examine the characteristic image of uterine inversion. *Lewin et al* reported that in T2-weighted MRI scans, a U-shaped uterine cavity and a thickened and inverted uterine fundus on a sagittal image and a “bulls-eye” configuration on an axial image are signs indicative of uterine inversion [8].

The appropriate treatment depends on preoperative diagnosis, but abdominal or vaginal hysterectomy with bilateral salpingo-oophorectomy is recommended for benign causes if childbearing is not an issue. When a uterine malignancy is associated with uterine inversion, abdominal hysterectomy with

appropriate staging biopsies is usually indicated. An attempt at vaginal restoration using surgical techniques has been reported but is difficult. Abdominal hysterectomy may be necessary, taking care to locate the distal ureters, with intraoperative cystoscopy to ensure bladder and ureteral integrity. In the present case of incomplete inversion laparotomy was performed which confirmed the diagnosis of inversion. After this confirmation abdominal hysterectomy was performed. Uterus with fibroid was removed. We remained above the level of uterosacrals as cervix and vagina was grossly stretched over this large fibroid. Some authors suggest transvaginal excision of the tumor mass before abdominal hysterectomy. The prognosis depends on the initial diagnosis and the stage of disease.³ Non-puerperal uterine inversion is a very unusual condition that most gynecologists will never encounter, and thus has to be managed based upon little or no previous experience.

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