

CHRONIC UTERINE INVERSION ASSOCIATED WITH A LARGE FUNDAL UTERINE LEIOMYOMA PRESENTING AS ABNORMAL UTERINE BLEEDING : A RARE CASE REPORT

Obstetrics And Gynaecology

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ABSTRACT

Introduction: Acute inversion of the uterus being a common obstetrical complication observed post partum, Chronic inversion of uterus is a rare clinical entity which is usually associated with gynaecological disorder like fibroid present at fundus of uterus. We, hereby present a case of 43-year-old female P3L3 with all institutional vaginal deliveries who presented with 6 months history of abnormal vaginal bleeding, dragging pain in the lower abdomen since 2 months, something coming out per vaginum since 1 month and retention of urine since 2 days. Ultrasonography s/o haematometocolpos, Ct scan revealed endometrial haematoma?post procedural. Due to AUB in a case of perimenopausal women with completed family, decision of hysterectomy was taken. On laparotomy, chronic uterine inversion was present with flower pot appearance of fallopian tubes and ovaries coming out of the cornua due to a large 10x8 cm degenerating submucosal fundal fibroid, inversion which was corrected by haultain's procedure and fibroid was removed. Then hysterectomy was done. This was a case of chronic inversion of uterus due to a large fundal fibroid. Histopathology report of the retrieved specimen were also suggestive of uterine leiomyoma at fundus of uterus.

Chronic uterine inversion associated most commonly with fundal submucous leiomyoma. Other causes are leiomyosarcoma, endometrial carcinoma, cervical carcinoma, rhabdomyosarcoma, mixed mullerian sarcoma. It is an extremely rare gynaecologic cause of AUB in females. It could be labelled as gynaecological near miss so a high index of suspicion is needed to diagnose this condition and it can be easily misdiagnosed as any other entity.

KEYWORDS

Chronic uterine inversion, Fundal fibroid, Gynaecological near miss, Haultain's procedure, Hysterectomy

INTRODUCTION:

Uterine inversion is descent of fundus of uterus to or through cervix, so uterus is turned inside out.¹ It is a rare life-threatening complication of parturition, which usually occur immediately after delivery.² Chronic inversion is rarer and most of the times associated with uterine pathology like uterine fibroid, uterine neoplasm, endometrial polyp.³ Here we present a case of chronic uterine inversion which was diagnosed during exploratory laparotomy done for AUB secondary to unknown cause. Clinically it was a diagnostic dilemma.

CASE REPORT:

A 43-year-old P3L3 with all full term institutional vaginal deliveries and history of open tubal ligation done 20 yrs back, this perimenopausal woman came to gynaecology OPD with history of excessive menstrual flow since 6 months, dragging pain in the lower abdomen since 2 months, something coming out per vaginum since 1 month and retention of urine since 2 days. No significant past medical and surgical history. no bowel complaints.

On general examination, patient is conscious oriented, afebrile, pallor++, no icterus and edema. Her BP was 120/80 mmHg. Pulse rate was 108 beats per minute. Oxygen saturation 99%. Her cardiorespiratory system was normal.

Per abdominal examination difficult due to obesity, hence revealed nothing remarkable and no palpable pathology, open btl scar+, nt.

On local examination no mass present outside vagina.

On per speculum examination a bluish black mass of 10x8 cm present in vagina which was congested, edematous and necrotic in appearance. Cervical lips not seen even in deep per speculum examination. Minimal Active bleed present. (Figure 1)

On per vaginal examination a mass of 10x8x6 cm was felt in vagina which was firm in consistency, bleeds on touch with smooth outline. The mass was occupying whole of the vagina so it was not possible to do examination above the mass.

Cervical os could not be evaluated. There was no space to palpate the fornices. Also, there was excessive bleeding hindering further examination. Cervical malignancy was ruled out by histopathology of tissue obtained during per vaginal examination.

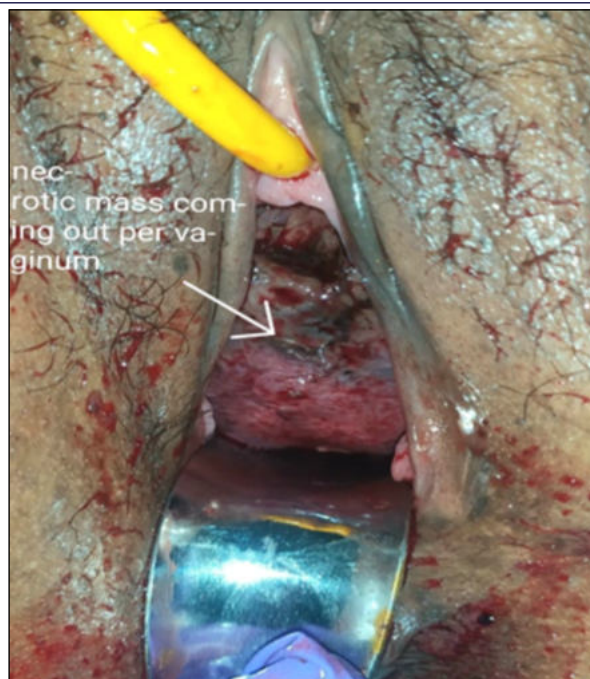


Figure 1-Per speculum examination showing bluish black mass coming out per vaginum

Her investigations were; Hb 7.2 gm/dl, after that 3 units of blood transfusion was done. Her ultrasonography revealed bulky uterus with ? haematometocolpos. Ct scan done suggestive of endometrial haematoma?post procedural. MRI facility was not available hence not done. ECG, chest x-ray, renal and liver function test were normal. So provisional diagnosis of ? haematometocolpos?degenerated uterine fibroid was made. She was given broad spectrum antibiotics and planned for exploratory laparotomy sos hysterectomy as her bleeding did not resolve on medical management.

Under spinal anaesthesia, patient given lithotomy position, mass held with a long allis forceps, confirmed it was a fibroid and trial of

separation per vaginally given which was unsuccessful, hence proceeded with laparotomy. A vertical paramedian incision taken. Abdomen opened in layers, on opening there was evidence of absent uterine fundus, a cervical constriction ring and a classical mouth of flower pot appearance (cup like dimpling seen with both round ligaments, fallopian tubes and both ovaries coming out of it) (Figure 2).

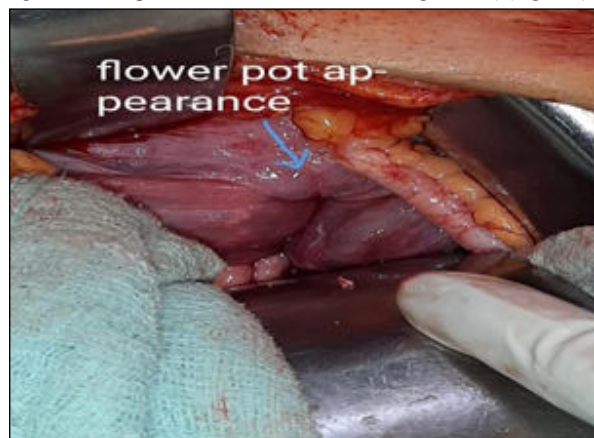


Figure 2: Illustrating Flower Pot Appearance Which Shows A Constriction Ring Through Which Cornu Fundal Structures Are Dipping Into It.

Incision was given on posterior surface of the constriction ring and then inverted fundus was pushed up from below with an assistant passing a finger through the vagina. Thus, inversion was reduced (Figure 3). Then 12x10 cm degenerating fundal fibroid was excised and sent for histopathological analysis.

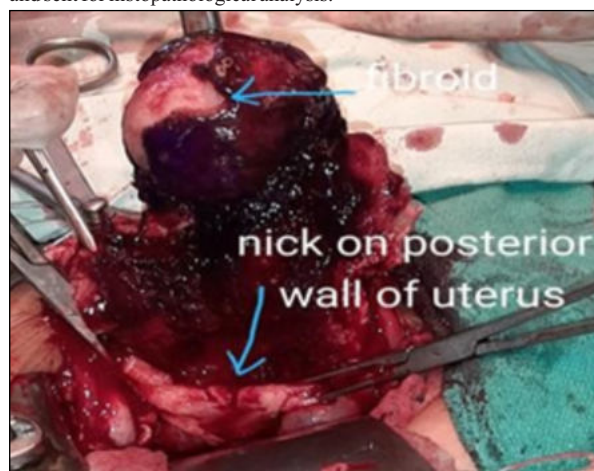


Figure 3- A Fundal Submucosal Fibroid With Incision On Posterior Wall Of Uterus For Haultain's Procedure

As patient was perimenopausal and her family was complete with written informed consent decision of total abdominal hysterectomy was taken and performed.

Specimen was taken out and sent for histopathology. Abdomen closed back in layers after haemostasis and after checking counts. Post-operative period uneventful. Patient was healthy at time of discharge. Her histopathology revealed degenerated uterine leiomyoma.

DISCUSSION

Uterine inversion defined as descent of fundus of uterus to or through the cervix, so uterus is turned inside out.¹ It may be puerperal and non-puerperal. Puerperal being the most common which is the reason for acute uterine inversion.

Chronic non-puerperal uterine inversion is an extremely rare condition accounting for approximately $\frac{1}{3000}$ cases of all uterine inversion. Benign uterine tumors (leiomyoma, endometrial polyps) was the most common cause and associated 70-80% cases of uterine inversion.²

Exact mechanism causing uterine inversion are not clearly identified.

Possible mechanisms are - sudden emptying of uterus which was distended by tumor, thinning of the uterine walls due to an intrauterine tumor, dilatation of cervix.⁴

High index of suspicion is necessary for the diagnosis. Diagnosis depends on clinical feature, pelvic examination and imaging techniques. Chronic inversion presents with irregular vaginal bleeding, severe dysmenorrhea, chronic vaginal discharge, weakness, backache and anaemia.⁵ On pelvic examination a mass coming through the cervix, absence of the uterine fundus during bimanual or rectal examination fully indicative of the chronic uterine inversion.⁵

The degree of inversion can be classified into incomplete, complete, or total. In the incomplete form, the uterine fundus descends inferiorly but not through the cervix. In a complete inversion, fundus and corpus extend through the cervix. In a total inversion, the vagina is also inverted. In our case, it was a complete type. Diagnosis is always not easy. Acute forms are mostly symptomatic while chronic form can be asymptomatic or associated with pelvic pain with a sensation of heaviness or per vaginal bleeding. As mentioned, On physical examination, a vaginal mass can be detected, but the uterus is not palpable by bimanual examination.⁶

First line investigation includes ultrasonography.⁷ Best imaging modality if available is the MRI.⁵ Although, it will only assist the diagnosis. Due to rare type of disorder sometimes diagnosis will be made during surgery.⁸

It's diagnosis and management could be challenging because it is rarely encountered by the gynaecologist.³

Surgery is essential in chronic non-puerperal uterine inversion. Surgical repositioning or hysterectomy can be done considering patient's age, procreative desire and associated condition.

Surgical repositioning can be done through vaginal or abdominal approaches. In vaginal route approach Spinelli's method requires dissection of bladder with anterior uterine wall incision whereas in Kustner's method posterior uterine wall incision is given.⁹

In abdominal approach a) Huntington's procedure consist of locating the cup of uterus formed by inversion, digitally dilatation of the cervical ring and gentle upward traction of round ligament of the uterus.¹⁰ b) Haultain's method- Vertical incision is given on posterior parts of the constriction ring, each round ligament from slit is pulled upwards while an assistant pushes the fundus upwards through vagina.¹¹

In chronic inversion secondary to a fibroid, infection of the fibroid and uterus should be suspected. An attempt at vaginal restoration and removal 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.¹²

Other methods include laparoscopic reduction, use of obstetric ventouse at laparotomy and robotically assisted laparoscopic reduction. We used the Haultain's method to reposit the uterus followed by polypectomy and total abdominal hysterectomy.

Cases of uterine inversion are rare and most of the times not straight forward. Sometimes it is challenging to diagnose the case timely. When the case is diagnosed also, there can be a challenge to manage and has to be operated with multiple approaches like abdominal and vaginal approach. This case taught us to think of uterine inversion in a patient with per vaginal bleeding and mass-like feeling in the vaginal canal¹³ and dragging pain in the lower abdomen with ultrasonographic and CT findings suggestive of an altogether different diagnosis.

CONCLUSION:

It is an extremely rare gynaecological condition that is difficult to diagnose for even experienced gynaecologist and radiologist. It can be misdiagnosed as uterine prolapse, cervical fibroid or polyp, haematometocolpos, advanced cervical malignancy, prolapsed hypertrophied ulcerated cervix or other causes of AUB in females. It could be labelled as "gynaecological near miss" so a high index of suspicion is necessary for its diagnosis.⁴

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