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Case Report

Non-Puerperal Uterine Inversion Secondary to Large Submucosal Leiomyoma: A Case Report

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Abstract

Introduction: The chronic non puerperal uterine inversion is a rare gynecological clinical condition which usually results from tumour arising from the fundus of the uterus.

Case Presentation: A 44- year- old lady presented with complaints of dysmenorrhea and menorrhagia for the last five years and foul smelling PV discharge and lower abdomen pain for 15 days. On laparotomy, huge submucosal fibroid from fundal region was seen and there was the typical appearance of uterine inversion, ie broad ligament, round ligament and other associated structures were stretched due to uterine inversion. Uterine reposition was tried but it was not possible.

Conclusion: Chronic nonpuerperal inversion of the uterus is rare. Infection should be suspected and appropriate broad spectrum antibiotics begun while planning surgery. An attempt at vaginal restoration and removal is difficult. Abdominal hysterectomy may be necessary while taking care of ureteric and bladder injury.

Keywords: Chronic Uterine Inversion; Fibroid Polyp; Misdiagnosed; Non-puerperal

Introduction

Uterine inversion refers to the descent of the uterine fundus to or through the cervix so that uterus is turned inside out. Inversion of the uterus was classified by Jones in 1951 into two types: puerperal or obstetric and nonpuerperal or gynaecological [1]. Nonpuerperal uterine inversion (NPUI)is extremely rare which consist about one-sixth of all uterine inversion [2]. Inversion can also be classified as acute and chronic. With acute inversion, the patient may have severe pain in lower abdomen or excessive bleeding whereas chronic inversion may be insidious or patient may have lower abdominal discomfort, vaginal discharge, irregular vaginal bleeding, or anemia [3].

NPUI is a rare entity seen secondary to intrauterine pathology like fundal polyps and leiomyoma [4]. Takano., *et al*. reported that 71.6% cases of uterine inversion were associated with leiomyoma [2]. Puerperal uterine inversion occurs as obstetrical emergency due to the mismanaged third stage of labour.

Here we are present a case of 45-year- old lady with non-puerperal chronic uterine inversion secondary to fundal sub mucous fibroid polyp.

Case Summary

A 44-year para two lady presented with complaints of dysmenorrhea and menorrhagia for the last five years, and her ultrasound done four years ago showed small tiny fibroids uterus but she didn't seek medical help since then. She started having foul smelling PV discharge and lower abdomen pain 15 days ago and went to hospital, found to have huge fibroid by ultrasound.

On general examination, she had severe pallor. On per abdominal examination uterus was just palpable. On per speculum examination, foul smelling discharge and huge pale mass seen in vaginal and cervix was not visualized. On bimanual examination, approximately 8x8 cm firm globular mass was felt within the vaginal canal, with a rim around the mass and groove felt between cervix and mass. Her ultrasound revealed poor visualization of uterine fundus with Y configuration of uterine cavity and central fluid collection with surrounding echogenic rim, probably non puerperal uterine inversion. MRI showed large pedunculated submucosal lesion arising from the uterine fundus causing uterine inversion and extending into cervical and the upper vaginal canal with stretching of the endometrial cavity and cervical canal.

With clinical diagnosis of uterine inversion with fibroid polyp she underwent abdominal hysterectomy after correction of anemia and infection. On laparotomy, there was the typical appearance of uterine inversion, i.e. broad ligament, round ligament and other associated structures were stretched due to uterine inversion. Uterine reposition was tried but it was not possible. A sessile submucous fibroid of 10cmx8 cm size was attached to fundus. Total abdominal hysterectomy and bilateral salpingo-oophorectomy was done and bladder and ureteric injury were ruled out intraoperatively by cystoscopy and ureterorenoscopy. Her post-operative period was uneventful and was discharged on 5th post-operative day. The histopathology of the excised polypoid mass showed myoma.

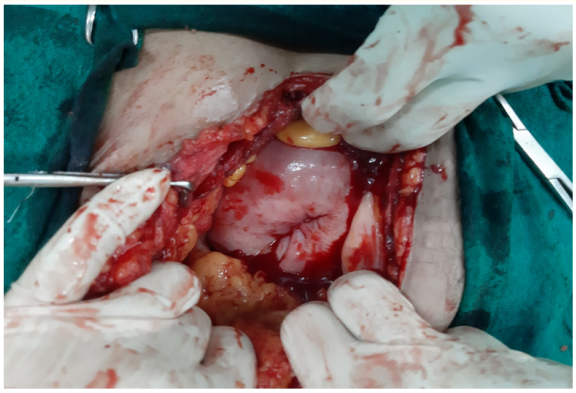

Figure 1: Intraoperative picture showing dimpling on uterine fundus.

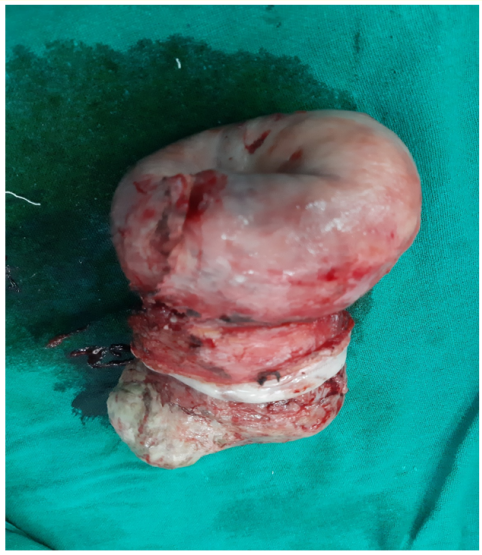

Figure 2a: Gross Specimen: dimpling of fundus with submucous fibroid.

Discussion

NPUI is a rare clinical situation and is a diagnostic dilemma and treatment challenge [5]. The Contributing factors responsible for NPUI include thinning of the uterine walls from the base of the tumour and pressure atrophy, sudden emptying of the uterus which was previously distended by a tumour, and dilatation of the cervix [6,7]. Uterine inversion can be classified into four stages as [8]:

- **Stage 1:** Inverted uterus remains in the uterine cavity
- **Stage 2:** Complete inversion of the fundus through the cervix

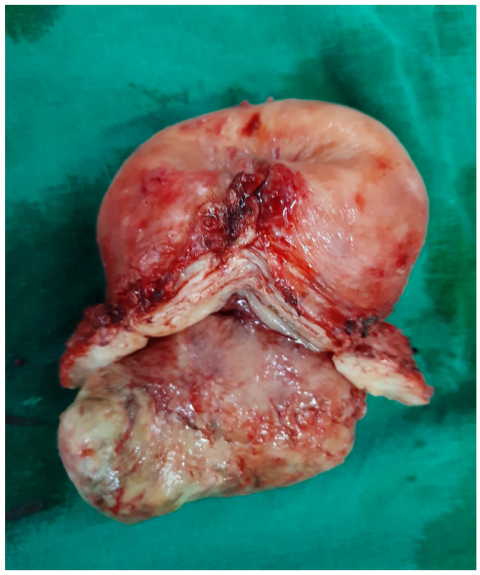

Figure 2b: Cut Section: submucous myoma (10 x 8cm).

- **Stage 3:** Inverted fundus protrudes through vulva, and
- **Stage 4:** Inversion of the uterus and vaginal wall through the vulva.

Common clinical features of NPUI are chronic vaginal discharge and anemia due to heavy irregular uterine bleeding. Some may also present with voiding difficulties and lower abdominal heaviness. Due to its insidious onset and rare occurrence the clinical diagnosis of chronic uterine inversion is difficult, especially if inversion is incomplete. Its diagnosis requires a high index of suspicion when tumour is palpable in vagina or seen out of introitus and uterine fundus is not palpable on bimanual examination,

Initial management of NPUI includes fluid resuscitation, correction of anemia and antibiotics as patient may present with septic shock or severe anemia due to bleeding. Definitive management i.e. surgical, depends on fertility desire, stage of inversion and type of uterine pathology.

For patients who wishes to preserve fertility, repositioning of the uterus should be attempted. For patients who don't want to retain fertility or if it not possible to reposition the uterus hysterectomy should be considered. It should be assumed that hysterectomy would be technically difficult on a inverted uterus, rather than the in normally positioned uterus.

The various surgical techniques of repositioning uterus are Huntington, Haultain, Spinelli, and Kustner's operation. Spinelli and Kustner operations involve replacing the fundus though anterior and posterior transections respectively through vaginal route [9] whereas Haultains method is done abdominally. The abdominal route is preferred over vaginal route because more traction can be applied on round and broad ligaments which helps in reposition, less chance of bleeding and the uterus can be sutured more accurately [10].

Conclusion

NPUI is a rare clinical condition. Due to different presentations of the condition and the low incidence, it can be misdiagnosed on initial assessment. A high index of suspicion is necessary for diagnosis when a large prolapsed fibroid is encountered. Hysterectomy can be done for patients who completed their family and in whom it is technically difficult to reposition the uterus.

Conflict of Interest Statement

The authors declared no conflict of interest.

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