



SUB MUCOUS FIBROID: A RARE CAUSE FOR ACUTE INVERSION OF NON-PUERPERAL UTERUS

Gynaecology

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ABSTRACT

With the advancement in obstetric care non-puerperal inversion of uterus is rarely seen in today's practice. Chronic non-puerperal inversion is commonly associated with uterine polyp or sub mucus fibroid with fundal attachment. So far anterior wall sub mucus fibroid has not been implicated to cause acute inversion of uterus.

We present two cases of acute inversion of nonpuerperal uterus due to submucous fibroid. A 40 years old multipara, presented to our gynecological emergency in a state of shock with complaint of something coming out and excessive bleeding per vagina for one day. Clinical examination suggested severe anemia and a sub mucous fibroid causing acute inversion of uterus. After resuscitation she underwent vaginal myomectomy and repositioning of the uterus by Johnson's method. This was followed by abdominal hysterectomy. The cut section of specimen showed pedicle of sub mucous fibroid arising from anterior wall of uterus. Another case was similar case in which young female of 29 years presented with acute inversion due to fundal fibroid. She was managed by myomectomy from vaginal route and reposition of uterus by Johnson's method.

KEYWORDS

Anterior wall fibroid, acute inversion, non-puerperal uterus

INTRODUCTION

Non-puerperal inversion of uterus is an uncommon condition that often cause diagnostic dilemma [1].

Chronic non puerperal uterus is often associated with intrauterine pathology like polyp and sub mucus fibroid with fundal attachment [2,3]. So far anterior wall sub mucus has not been implicated to cause acute inversion of uterus. We report a two cases of acute inversion of non puerperal uterus. First case is of neglected anterior wall sub mucus fibroid that caused acute inversion of uterus producing state of shock. Second is fundal submucus fibroid leading to acute inversion in young woman.

Case report 1

A 40-year-old multiparous lady came to our Gynecology emergency with complaints of something coming out per vaginum, along with excessive vaginal bleeding and severe pain in the lower abdomen for one day. Prior ultrasonography and endometrial sampling showed submucus fibroid of 5x4 cm and endometrium in secretory phase.

Local examination revealed a mass about 15 x 15 cm with bosselated, hemorrhagic and edematous surface protruding out of vagina (figure-1). The cervical opening was not visible. Mass was coming out from uterus with a thick pedicle and it was irreducible. Uterus was not palpable in the pelvis. Per rectal examination also corroborated with absence of uterus from pelvic. Trans abdominal ultrasonography confirmed absence of uterus from pelvis, however; a large heterogeneous mass was seen filling up the vagina. A provisional diagnosis of uterine inversion due to fibroid uterus was made. Within 2 hours of admission patient was taken for emergency laparotomy with plan of abdominal hysterectomy after correction of inversion as she had completed her family and associated risk of malignancies.

Under general anesthesia abdominal cavity was opened. The typical flower vase appearance of Fallopian tubes and ovaries in the crater of inverted uterus was seen. A very tight ring was felt deep inside the pelvis. A traction applied on the round ligament 2 cm below insertion was not able to pull the fundus. The cervical ring was also not accessible for resection through abdomen, so we proceeded with vaginal myomectomy. After myomectomy inverted fundus was repositioned using Johnson's method. Total abdominal hysterectomy with conservation of ovaries was done. Cut section of specimen showed pedicle arising from anterior wall of uterus (figure-2).

Patient postoperative course was uneventful and she was discharged from hospital on 4th postoperative day in satisfactory condition. Histopathological examination confirmed the diagnosis of degenerated fibroid.

Case 2

A 29 years old female came to emergency with complain of something coming out per vagina for 14 hours. There was history of dysmenorrhoea and menorrhagia for last 10 months. She was married for 11 months and had 1 missed abortion for which she underwent suction evacuation three months back. She had ultrasonography report which showed 6.4 cm X 4.6 cm fibroid in fundal region. On examination mass of 4X5 cm mass seen outside introitus with reddish surface and no cervical opening. On per vaginal examination cervical rim felt all around the mass and dimpling of uterine fundus felt. Per rectal examination collaborated with above findings. Transabdominal transverse sonogram done showed target sign with the hyperechoic inverted fundus centrally surrounded by hypoechoic fluid between fundus and vagina (figure -3). In sagittal plane there was mirror image of normally situated uterus. Two opposed serosal surfaces simulated appearance of endometrial pseudostripe. Diagnosis of acute non puerperal uterus was made due to fibroid uterus. Under general anaesthesia myomectomy done from vaginal route after demarcation felt between fundus and fibroid and reposition of uterus done by Johnson's method.

DISCUSSION

Non-puerperal uterine inversion is rare condition with about only 150 cases reported in the literature [4]. The proposed risk factors to cause uterine inversion includes sudden emptying of previously distended uterus by a tumor, intrauterine tumor causing thinning of uterus and dilatation of cervix. Chronic non-puerperal uterine inversion mostly affects women with intrauterine tumor [5]. Approximately 71.2% and 20% of uterine inversions are associated by leiomyoma and malignant tumor respectively [6].

Chronic uterine inversion manifest with vaginal discharge, abnormal uterine bleeding, voiding difficulties and lower abdominal heaviness. Traction on the infundibulopelvic ligament, round ligament and pressure effect on ovaries may cause shock in cases with acute inversion. Index case presented with acute inversion in state of shock.

Signs of uterine inversion are anemia, mass protruding in the vagina or outside introitus. Diagnosis of inversion requires high index of

suspicion when mass is palpable in vagina or outside introitus, cervical rim is not felt around the mass and uterus is not palpable on bimanual examination. Recto abdominal method is most diagnostic clinical method as the vagina is occupied by inverted uterus.

Definitive diagnosis is by ultrasonography and magnetic resonance imaging (MRI). In incomplete inversion ultrasonography shows indentation of the fundal area and a depressed longitudinal groove extending from the uterus to the centre of inverted portion of uterus making a Y shaped configuration. In complete inversion of non puerperal uterus transabdominal sonography shows target sign with hyperechoic inverted fundus centrally surrounded by hypoechoic fluid between fundus and vaginal wall. In addition color Doppler flow shows the uterine blood vessels situated inside the uterus instead of lateral to it [7]. In T2 weighted MRI scan, a U-shaped uterine cavity with thickened, inverted uterine fundus on sagittal image and a bulls eye configuration on a axial image are indicative of uterine inversion [8]. In both cases MRI was not done, however; clinical and ultrasonography features suggested the diagnosis of inversion of uterus.

The management plan includes care of local infection and tissue diagnosis before definitive surgery. If inversion is idiopathic or associated with benign pathology, it should be repositioned into its anatomic position using vaginal approach with or without hysterectomy [9].

Correction of non-puerperal inversion uterus may be done by non-surgical or surgical methods. Non-surgical methods include Johnson's method and saline hydrostatic method [10,11]. Hysterectomy is usually performed after correction unless patient is young and desirous of fertility, as there is associated risk of malignancy.

Vaginal surgical methods may be either conservative like posterior (Kustner's) or anterior (Spinelli's) operation or vaginal hysterectomy. Spinelli's approach requires dissection of the bladder. In both Kustner and Spinelli's incision extend to almost entire length of the uterine wall, there is difficulty in complete closure of uterine incision, haemorrhage from the inverted fundus and high failure rate. Vaginal hysterectomy can be done after making uterus in normal position. Abdominal route is simple, associated with fewer complications. In Huntington's technique, gentle traction is exerted on round ligament 2 cm below insertion by allis forceps and advanced 2 cms below the previous clamps repeatedly till reduction is completed. [12]. In Haultain's technique, the posterior ring of the inversion is cut from the abdominal cavity. Uterus is repositioned with help of Allis forceps along with pressure on the fundus from inside the vagina [13].

We preferred abdominal method, as vaginal approach is commonly associated with complications and high failure rate. Huntington's and Haultain's approach did not work for our case. So we performed myomectomy by vaginal approach followed by abdominal hysterectomy after repositioning of the uterus. Manual repositioning was possible in the both cases because of acute inversion when fibrosis of cervical ring may have not occurred. This may not be feasible with chronic inversion. This approach is more beneficial for a younger patient desirous of fertility as a uterine/ cervical incision is avoided as in our second case.

CONCLUSION

Acute non-puerperal uterine inversion requires a high index of suspicion for diagnosis when a large mass seen outside introitus without cervical opening and absence of uterus in the pelvis. In young patient desirous of fertility myomectomy from vaginal route and repositioning of uterus by Johnson method is beneficial.



Figure-1 shows mass protruding out from vagina with bosselated, haemorrhagic and edematous surface (white arrows) with no visible cervical opening.



Figure-2 shows cut section of specimen showed pedicle (white arrow) arising from anterior wall of uterus. The fundus was free of tumor.



Figure -3 shows transabdominal transverse sonogram showing hyperechoic inverted fundus centrally surrounded by hypoechoic fluid between fundus and vaginal wall.

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