

CASE REPORT

The unique case of uterine torsion

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ABSTRACT

Uterine torsion as such is a rare entity. Many times it is as good as once in a life time experience for the gynecologist. The uterine torsion in gravid uterus per say is more of the exaggerated form of axial rotation. Because of the rarity of the cases the definition of the terminologies such as primary and secondary torsion and acute and chronic torsion, differentiating factors between physiological and pathological axial rotation of the uterus has been the dilemma for the gynecologist. Here we are presenting a unique case of chronic uterine torsion in postmenopausal age group with bleeding per vaginum.

Keywords: Axial rotation, uterine torsion.

There is much confusion as far as definition of uterine torsion is concerned. Some have defined uterine torsion as rotation of the uterus on its long axis for more than 45 degrees. Asymptomatic torsion of the uterus of 180 degrees has been described by Hanley in 1939¹ although Armstrong and Hughes² regard axial rotation of 30 degrees as pathological. A mere discovery of uterine rotation of, say 90 degrees at cesarean section, should not qualify for diagnosis of uterine torsion. It seems reasonable to suggest that the term 'torsion' should be reserved for symptomatic cases, while asymptomatic cases should be referred to as 'axial rotations'.

The incidence of uterine torsion cannot be clearly established because of the following problems: 1) Not all cases are reported, 2) The criteria to define uterine torsion still are not clear and are under debate or say not standardized, 3) The cases are usually diagnosed incidentally on the operation table. The definition of uterine cases should include all cases of uterine torsion

which are symptomatic and also incidentally found on the operation table irrespective of degree of torsion. The cases should be categorized as 1) Primary – Those cases of uterine torsion with no predisposing pathological condition, 2) Secondary – Those cases of uterine torsion with some predisposing factor or pathological condition. They should be separately reported in gravid and non gravid uterus. According to duration 1) Acute – The cases of uterine torsion presenting with acute symptoms requiring emergency treatment of detorsion or intervention, 2) Chronic - The cases that do not require emergency correction or detected incidentally on operation table in some other conditions.

Here we have a post menopausal lady presenting with sudden brownish colored vaginal bleeding after 10 years of menopause. We are saying it unique as it was primary uterine torsion with no underlying fibroid or ovarian mass or any other pathology to label it as secondary. It was also rare case of chronic case of uterine torsion. We are

Received: 1st January 2018. **Accepted:** 7th April 2018.

Kamble S, Kale TP. The unique case of uterine torsion. The New Indian Journal of OBGYN. 2018; 5(1): 60-63.

reporting this case as there is no such case reported in the literature.

Case report

A 62 year old female came to Sassoon general hospital which is a tertiary care government hospital with complaints of per vaginal bleeding, since 15 days in bouts which was increased since last evening which was dark brown in colour requiring 5- 6 pads/day. There was no complaint of foul smelling discharge, passage of clots. She had noticed progressive distension of abdomen since 1½ year which was gradual in onset, slowly progressing, with abdominal mass of coconut size to start with and increased up to present size of above umbilicus associated with dull aching, continuous pain all over the abdomen.

In her menstrual history she had achieved menopause-10 years back and her previous menstrual cycles were regular, with no history of any per vaginal bleeding or discharge any time in between. In her obstetric history she had previous three normal full term vaginal deliveries and two first trimester abortions, all were uneventful. Patient had no history of diabetes mellitus, hypertension, tuberculosis, bleeding disorders, blood transfusion in past. In her personal history, she had normal appetite and bowel and bladder habits with, no addiction, no allergy. She had no significant family history suggestive of fibroid or breast, colon or ovarian malignancy.

On examination on admission her general condition and vital parameters were stable with no systemic abnormality detected. On inspection there was uniform globular midline abdominal distension present almost up to xiphisternum but no dilated veins, pulsation seen. On palpation a 36 weeks central mass was felt, firm to cystic in consistency which was nontender with good side to side mobility, regular, well defined margin, overlying skin being free, no nodularity, no ascites, but lower edge could not be reached.

Per speculum examination revealed scanty dark chocolate coloured fluid in vagina. Cervix and vagina were healthy but cervix was high up. Per vaginal examination confirmed that cervix was very high up and normal in consistency with no growth and uterus could not be appreciated separately from mass. Per rectal examination revealed free rectal mucosa and no nodularity.

So the differential diagnosis after examination was - 62 year old female P₃L₃A₂ postmenopausal with Uterine mass/ Ovarian mass/ Haematometra.

Her laboratory investigations were normal, with normal coagulation profile and CA-125 of 30 U/ml which were normal too. Ultrasonography report suggested a large thick walled cystic lesion in pelvis measuring 21 × 15 × 21cm³ with calcifications noted within the lesion. Approximate volume of collection is 2446 ml. Uterus was not separately visualised. Right ovary could be seen separately. Left ovary was not visualised. Minimal free fluid was seen in pelvis. Impression was large cystic pelvic abdominal lesion likely to represent haematometra/ long standing pyometra.

Ct scan revealed similar findings that of ultrasonography so the final diagnosis of hematometra was made and she was posted for elective procedure of evacuation of hematometra and exploration if required. Written informed consent of self and relatives were taken.

Patient was put on lithotomy position after spinal anaesthesia was given. Under all aseptic precaution



Figure 1: Uterine torsion of 180° with ovary seen anteriorly and devitalised area seen on the posterior surface of fundus of uterus.

painting and draping was done, Sims speculum was introduced and anterior lip of cervix was held with vulsellum. A plastic cannula no. 5 was inserted inside the uterus with difficulty through the cervix. Around 500 ml

thick chocolate brown coloured fluid was drained. Then again a larger size cannula of no. 7 was inserted and around 1.5 litres fluid was drained. After drainage height of uterus was reduced to almost 16 weeks size. Per vaginal examination findings after drainage revealed uterus of 16 weeks size, mobile, fornices were free. But still uterus had not return to normal size and no further fluid from the uterine cavity was getting drained, so the decision for exploratory laparotomy was taken to rule out any other pathology. Abdomen was painted in supine position and opened in layers. Evidence of distended uterus of around $20 \times 22 \text{ cm}^2$ was seen with axial rotation of 180 degree in the region of isthmus. Ovarian ligament and ovary were seen anteriorly and fallopian tube posteriorly (Figure 1). Uterine torsion was corrected. Right ovary was oedematous with few necrotic areas. Uterine serosal surface was devitalised at the fundus and anterior upper surface. Myometrium was so much thinned out that; uterus was felt as loose thin flabby bag (Figure 2). So, total abdominal hysterectomy with bilateral salpingo-oophorectomy was done. Cut open specimen revealed lot of old brownish blood clot sludge suggesting a very long



Figure 2: Showing uterus as loose bag with extremely thin wall which was cut open with blood sludge inside the uterine cavity.

standing hematometra not getting drained naturally because of uterine torsion. Specimen was sent for

histopathological examination. Hemostasis confirmed and abdomen closed in layers. Procedure was uneventful.

Discussion

The rarity of uterine torsion has been pointed out by Siegler and Silverstein (1948)³, Armstrong and Hughes (1951)², and Nesbitt and Corner (1956)⁴. However, the credit for describing the first case – a postmortem finding - must go to Times (1861) quoted by Zuckerman and Adoni (1973)⁵. From cases reported in the literature it is also evident that a severe degree of axial uterine torsion of more than 360 degrees is extremely uncommon. In the review by Nesbitt and Corner of 107 cases there were only three of 540 degrees and one case of 720 degrees of torsion. Torsion from 60 degrees to 720 degrees has been described.

In two-thirds of these cases dextrorotation occurs and levorotation in rest of the one-third cases. The exact cause is still unclear though several conditions are associated with it like myoma uteri, abnormal fetal presentations, malformations of uterus, adhesions and adnexal mass. According to Robinson and Duvall⁶, certain maternal irregular body movements or posture and positions may trigger the uterine rotation with pre existing structural pathology. In 66% of cases of uterine torsion intrinsic pathology was found. The process of torsion can be explained by cervical elongation with structural weakness and angulation in the isthmic region. The structural weakness may be acquired or developmental.

In our patient, although there was no uterine pathology as such, thinking retrospectively, either patient could have had hematometra secondary to postmenopausal atrophic cervix leading to cervical stenosis which further landed into uterine torsion leading to such a huge mass of present size or could be secondary to uterine torsion in case of congenitally weak long isthmus leading to long standing hematometra. As hematometra did not drain naturally for almost 10 years, subsequently leading to huge uterine size of almost 36 weeks of gestation. The huge size of mass with pressure of collected fluid causing partial detorsion, on and off and sudden leakage of gush of brownish blood vaginally, facilitating natural drainage of hematometra after almost 10 long years of menopause. Though there were some devitalized areas on serosal surface of the uterus, complete devascularisation of the uterus was not evident as it was a partial torsion. The clinical

presentation of torsion is nonspecific which may vary from mild abdominal discomfort to symptoms of an acute abdomen with shock. In around 11% of cases, torsion is asymptomatic⁷. Establishing clinical diagnosis of torsion in such cases is very difficult before laparotomy. Most of the reported cases in literature of uterine torsion have not been detected on table during caesarean section in pregnancy or during laparotomy in non gravid cases.

As far as imaging is concerned, to make a diagnosis of torsion, ultrasonographic scanning is insufficient. Torsion can be diagnosed preoperatively in magnetic resonance imaging (MRI) if it involved the upper vagina by 'X' sign. Normally vagina appears H shaped⁸. Definitive diagnosis is only by laparotomy. Magnetic resonance imaging is the investigation of choice if torsion is suspected before cesarean section.

Torsion of uterus is associated with significant maternal and fetal mortality and morbidity during pregnancy and technical difficulties encountered during caesarean section. In torsion of non gravid uterus, there can be mortality and morbidity in cases of acute presentation with shock or other significant associated pathology.

Conclusion

As far as our case is concerned we can term it as unique because we did not come across such cases in our references and literature. Similar cases had not been reported in last 10 years in our government tertiary care hospital. It can be labeled as a chronic case of uterine torsion of primary origin.

Conflict of interest: None. **Disclaimer:** Nil.

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