ORIGINAL RESEARCH PAPER

Obstetrics & Gynecology

UTERINE TORSION- AN OBSTETRICIAN'S NIGHTMARE

KEY WORDS: uterine torsion, dextrorotation of uterus, detorsion of uterus

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ABSTRACT

Uterine torsion rare in human and has been referred to as an 'obstetrician's once in a lifetime diagnosis'. Uterine torsion is a potentially dangerous complication of pregnancy both to mother and to the fetus. Torsion of less than 45 degrees is considered physiological, but rotation of the uterus of more than 45degrees on its longitudinal axis is considered pathological. Dextro-rotation is more common than levorotatory according to literature. We encountered one case as such which was managed at our institute.

INTRODUCTION

Uterine torsion is defined as the rotation of the uterus more than 45° around the long axis, being dextrorotatory in two-thirds of diagnosed cases. The exact mechanism and aetiology of torsion is not known. It has been noted to occur in the presence of intra-abdominal adhesions, ovarian tumors and fetal malpresentations. Robinson & Duvall proposed that certain maternal irregular body movements or posture and positions may help trigger the rotation of a uterus with pre-existing structural pathology and intrinsic pelvic pathology is found in 66 percent of cases of uterine torsion[1].Though most cases of uterine torsion occur during pregnancy, it is seldom reported in literature. It has been observed in uncomplicated pregnancies and usually occurs in the third trimester, with severe maternal and perinatal consequences. Dextrorotation occurs in two thirds of the cases and levorotation is found in the other one third Torsion of a gravid uterus is associated with high perinatal mortality of approximately 12% of cases[1]. Uterine torsion for most obstetricians represents a "once-in-a-lifetime" diagnosis. Because missed diagnosis due to its rarity comes with devastating long-term effects.

Here we report rare case of uterine torsion who had come to our tertiary care centre and we diagnosed it intra-operatively and managed timely with exploratory laparotomy and caesarean section.

CASE REPORT

This case report discussed was a 27 yrs old, Gravida3 Para2 Living2 with previous 2 LSCS came to the emergency department of Government medical college and hospital, Aurangabad, patient had h/o 8 months of amenorrhea.

As per history she woke up in the early morning at 5 am with sudden onset of pain in abdomen, more on lower abdomen radiating to back. Patient also had an episode of vomiting. C/O giddiness, palpitation, decreased fetal movement since morning.

Patient reported to emergency at 8 am. No C/O leaking per vaginum, bleeding per vaginum, headache, epigastric pain, swelling over legs. No H/O trauma

Obstetric history- Married since 5 years. Obstetric score was G3P2L2, prev 2 deliveries were caesarean deliveries. First for primi breech and second was for prev LSCS. Caesarean deliveries were uneventful. In present pregnancy patient was booked with 6 ANC visits. Received iron and folic acid tablets. Antenatal period was uneventful. Patient had 3 ultrasonography examination.

Gestational age on admission- B/S- 37 wks (9.2 wks)
When patient was received , Patient was conscious, oriented

General Condition - moderate , SPO2- 99% off O2
Pulse- 126 /min, regular, low volume with BP- 100/60 mmhg, RR- 24cpm
Pallor ++,
CVS- S1 S2 heard, no murmur
RS- air entry bilaterally equal, no added sounds.
Per abdomen examination-

Abdomen distended
Height of uterus 32 weeks.
Difficult to palpate the abdomen due to tenderness and guarding.
Lower pole empty, uterine contour could not be assessed
Fetal heart sounds- could not be localized.
Per vaginum examination-
Os posteriorly placed, closed
Uneffaced
Pelvis adequate
No bleeding per vaginum
Urine output 50 cc concentrated.
Abdominal tapping was done with syringe and needle, 2.5 cc frank blood obtained which did not clot till 15 min.

Provisional diagnosis was made as G3P2L2 at 37weeks gestational age with previous 2 LSCS with intrauterine fetal demise with? rupture uterus? abruptio placenta.

Meanwhile relatives explained and counselled regarding fetal demise, prognosis and further management.
BT- 1 min , CT – 7 min 30 sec

Investigations revealed Hb- 5 gm%, TLC-8300/cumm, PLT- 1.2 lakh/cumm.

Decision taken for emergency laparotomy SOS obstetric hysterectomy with Indication-previous 2 LSCS with intrauterine fetal demise with? rupture uterus? abruptio placentae.

According to massive transfusion protocol, 4 units PRBC, 4 units FFP, 4 units RDP issued. Patient was taken for emergency laparotomy. There was evidence of Around 100 ml of haemoperitoneum, Couvelaire uterus, Uterus rotated on left side by 180 degree so that left ovary seen anteriorly, Uterus appeared congested, As there was no space for rotation of uterus (for detorsion), incision was planned on more accessible part of lower uterine segment (on posterior wall of uterus seen anteriorly), Baby delivered by breech, Female baby, 2.7 kg, Fresh still birth, Placenta delivered, Evidence of 500 gm retroplacental clot. Ovaries appeared congested. After delivery of baby and placenta there was no incision on anterior surface of uterus. Uterus exteriorized and Detorsion of uterus was done. The incision was on posterior wall of uterus. Uterus was sutured in two layers with vicryl 1.0 on the posterior wall of the uterus.

After confirming Haemostasis abdomen closed in layers. Procedure was uneventful. Patient's vitals were stable. Patient monitored and shifted to ward.

The following images shows the intraoperative finding

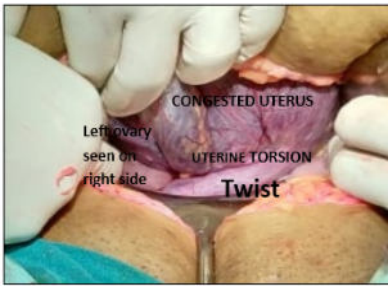

Fig 1. Intraoperative picture showing uterine torsion

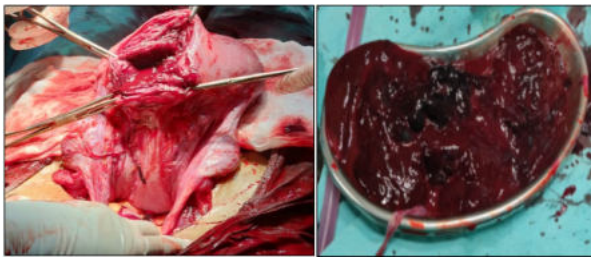

Fig 2. Incision on posterior surface of uterus.
Fig 3. Retroplacental clot of 500gm

Fig 4. Posterior surface of uterus
Fig 5. Anterior surface of uterus

DISCUSSION

Uterine torsion is defined as rotation more than 45 degree along the long axis of uterus. Uterine torsion can range from 45 to 360 degrees. It is seen in the presence of intra-abdominal adhesions, fetal mal presentations, ovarian tumors, Mullerian anomalies, laxity of abdominal wall. Recently the cases which have been reported have no associated pathology but have a history of previous caesarean section. In 1992, a literature review by Jenson, mentioned by Carbonne, showed 212 cases with different etiologies. Uterine torsion is most common dextrorotatory (2/3rd). The diagnosis is difficult and usually done intraoperatively. The presentation is non-specific. Pain, nausea, vomiting, may present without any signs of shock[2]. Uterus venous obstruction due to uterine torsion causes increased pressure in placental cotyledons leading to the abruption and fetal distress and subsequent progress to uterine artery obstruction can cause reduction in the placental perfusion which can lead to fetal demise. Some patients present with abnormal foetal heart, obstructed labour, vaginal bleeding and urinary or intestinal disturbances. Clinical signs including twisted vaginal canal, urethral displacement and palpable round ligament are diagnostic but rarely encountered[3]. Ultrasound might detect abnormal position of ovarian vessel across the uterus or might show change in placental localization or change in position of a previously identified fibroid. With MRI, X shaped configuration of upper vagina could be seen instead of normal H shaped structure. But, since uterine torsion present with non-specific symptoms or with an obstetric emergency necessitating urgent delivery , it is unlikely that imaging modality will be used for diagnosis[4]. Deliberate transverse or vertical incision on posterior uterine wall is required to deliver the baby as in our case. Posterior low transverse incision may cause injury to twisted uterine/ovarian vessels and ureter but, posterior vertical incision associated with high risk of uterine rupture[3]. Repositioning of the uterus is easier and may occur spontaneously once baby is delivered. Many authors recommend an elective caesarean section for subsequent pregnancies for patient with posterior uterine incision[5]. Bilateral plication of round ligaments can be done to prevent immediate postpartum recurrence of uterine torsion[6].

Since 1960 only one maternal death due to uterine torsion has been reported in literature[2] As we know obstetrics is a dynamic branch, we should always be ready for the surprises.

CONCLUSION

Uterine torsion though a rare occurrence still merits consideration as a differential diagnosis of acute abdomen in pregnancy especially with sudden onset shock or vaginal bleeding unexplained by other common obstetrical conditions. Though our initial diagnosis was abruption and rupture uterus because of thorough orientation of anatomy, we could pick up the diagnosis and treat accordingly.

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