Uterine torsion in pregnancy - A rare case report
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Abstract: Uterine torsion in pregnancy is a rare obstetric complication. It mostly occurs only in the third trimester of pregnancy and is associated with serious maternal and fetal consequences. Diagnosis is almost always made at laparotomy. We would like to present one such rare case.

Keyword: Uterine torsion, Laparotomy

Introduction: Pathologic transrotation of the uterus is rare. The diagnosis can be challenging because the signs of acute torsion are similar to placental abruption. It is rarely diagnosed prior to laparotomy because there is no typical symptomatology. It can be asymptomatic if it is gradual torsion or can present as acute abdomen if the torsion is sudden. We report our experience with a 29yr old multi with 25 wks of gestation who presented with acute abdomen and shock. Case Report: In August 2012, a 29 yr old G4P1L1A2 with 25 wks of gestation who was booked elsewhere presented to our casualty with severe abdominal pain for 2 hours. The patient had no other complaints and did not have history of PIH, GDM or any other co morbidities. She was perceiving fetal movements till before the pain started. On examining the patient, she was extremely pale and her peripheries were cold. Her pulse was very feeble (110/min) and BP was not recordable. She was in shock. Abdomen was over distended to 32 wks size and there was diffuse tenderness over the whole abdomen. Fetal heart sound could not be localised. Per vaginal examination showed a Cervix which was high up (uneffaced, os closed) and no bleeding. Presenting part could not be made out because it was also high up. Immediate resuscitative measures were taken and her condition was stabilized. Necessary blood investigations were sent. Bedside USG abdomen was done which showed Intra-uterine fetal demise. Globular heterogeneously hyper echoic lesion in the lower segment of the uterus measuring 6x6cm complacent anterior and fundal (contradicting the previous scan done 1 month back which showed a fundal and posterior placenta). No retro placental clots. With this picture we suspected a differential diagnosis of concealed placental abruption, uterine rupture or torsion and so a decision for laparotomy was made. Under GA, patient was positioned and parts painted and draped. On opening the abdomen by midline vertical incision, the uterus was found to be enlarged to 32 wks size with engorged bluish vessels on the surface.

The contour of the uterus was intact. UV fold of peritoneum could not be made out. The ovaries were seen easily on both sides without difficulty. As the uterus was grossly distended an attempt to trace the round ligament was not made.

Figure 1: shows dilated veins on the uterus and ovary visualized easily on the right side. Uterus was opened by classical incision. Around 2 litre of blood with clots evacuated followed by removal of an intact sac with clear liquor and a still born male fetus. Immediately following this, the uterus rotated and the incision had become posterior. This is when we realized that the uterus had actually undergone torsion to 180 degree (dextrorotation) and underwent detorsion once the uterine cavity was emptied.
Figure 2: shows incision on the posterior wall after detorsion. Postoperatively patient was given blood and blood products to compensate for the blood loss. She was on ventilator (SIMV mode) and slowly weaned off. Her condition improved and hence was discharged on the 6th postop day.

Discussion:
Physiologic torsion of gravid uterus up to 45 degree can be seen in 3rd trimester of pregnancy. However, it is considered pathologic if the rotation is more than 45 degree.(9) 2/3rds of the cases of torsion are dextrorotation and 1/3rd is levorotation.(5,6) The first report of uterine torsion in the human was published by Labbe in 1876 (9).Until 1992,212 cases have been reported in literature.(3) The etiologic factors for torsion can be uterine leiomyomas, malpresentations(transverse lie), congenital uterine anomalies, pelvic adhesions, ovarian cysts, abnormal pelvis, placenta previa, sudden twisting movements of the body, abdominal trauma etc (8). There have been reports of uterine torsion and fetal bradycardia associated with external cephalic version (7). The aetiology can be idiopathic in about 21% of the cases.

The clinical presentation can be dramatic if there is acute torsion or can be even asymptomatic(11%) if the torsion is gradual(6).The symptoms can be abdominal pain, shock, vaginal bleeding, obstructed labour, intestinal or urinary complaints.(3,6)
Torsion is almost always diagnosed at laparotomy and hence a high index of suspicion is needed to make an early diagnosis. There are some clues in examination and ultrasound that may raise the possibility of torsion. In cases of uterine torsion, the round ligament can be palpated stretching across the abdomen. Vaginal examination may reveal uterine artery pulsating anteriorly. The vagina or cervical canal can be twisted or atretic. Ultrasound can show placental site modification compared to the previous scan, change of position of a fibroid or abnormal vessels on the uterus by Doppler (2). On MRI, the normal H shaped vagina can become X shaped in torsion(6).

Once the diagnosis of uterine torsion in pregnancy is established, emergency laparotomy is indicated. Anatomical landmarks should be defined if possible, prior to uterine incision during a caesarean section, to avoid posterior hysterotomy (4). Following caesarean delivery, it is necessary to surgically remove all the anatomical causes of torsion, and rotate the uterus back to its normal position. There are some authors who suggest bilateral plication of the round ligaments as a preventive procedure for repeated torsion in puerperium and following pregnancies (10).

References
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