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Case Report

A twist in the tale: a rare case report of asymptomatic uterine torsion in a term pregnant woman

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ABSTRACT

An abnormal rotation of the uterus along its fixed longitudinal or vertical axis by a margin greater than 45 degrees is known as uterine torsion. Prenatal diagnosis is challenging, and it has multiple surgical and post-operative consequences that increase maternal and perinatal morbidity. A 33-year-old G2P1L1 with 38 weeks gestation, came with complaints of labor pains since, 2 hours was admitted in Cheluvamba Hospital, Dept of OBG, MMCRI on 7th January 2024. She was a booked case and her antenatal period was uneventful. She was taken to Emergency LSCS as she was Previous LSCS in labor. At surgery, the uterine surface was found to be covered with dilated tortuous vessels but the diagnosis of uterine torsion was unable to be made until extraction of the baby and exteriorisation of the uterus. Posterior wall uterine incision over the lower segment was performed as the uterus had rotated by 180° around its cervical junction. No uterine anomalies or fibroids were seen. Both the mother and the neonate were in good condition post operatively and were discharged from hospital 72 hours later. The degree of rotation and the stage of pregnancy determine the mother's prognosis in cases of uterine torsion. The period between 20 and 28 weeks of gestation is when the highest mortality rates occur (17%), and these rates decline with increasing gestational age. A 36% fatality rate has typically been associated with torsion of 180 to 360°. Both gestational age and the degree of torsion have an equal bearing on the fetal outcome. 71% of cases with torsion of 180 to 360° resulted in fetal death. When uterine torsion occurs unexpectedly, posterior uterine incision is a viable and time-saving procedure. A safe obstetric result is ensured by exteriorization, uterine detorsion, and careful examination of surrounding structures for injuries.

Keywords: Uterine torsion, Prenatal diagnosis, Pregnancy

INTRODUCTION

An abnormal rotation of the uterus along its fixed longitudinal or vertical axis by a margin greater than 45 degrees is known as uterine torsion.

Prenatal diagnosis is challenging, and it has multiple surgical and post-operative consequences that increase maternal and perinatal morbidity. There are so few reported cases of uterine torsion in pregnancy that there is no cited incidence for this condition as of today.[1]

CASE REPORT

A 33-year-old G2P1L1 with 38 weeks gestation with previous lower segment caesarean section (LSCS), came in labour, was admitted in Cheluvamba Hospital, Department of Obstetrics and Gynecology, Mysore Medical College and Research Institute, on 7th January 2024. She was a booked case and her antenatal period was uneventful. She was taken to emergency LSCS as she was Previous LSCS in labor. Intraoperatively, the anterior presenting Uterine surface was found to be covered with dilated tortuous vessels and the anterior urinary bladder

flap was not well defined. With suspicion in mind, caesarean section was carried out over the lower segment. After extraction of a healthy 3.5 kg male baby, it was found that the uterus had rotated by 180° around its cervical junction and the uterine incision was made on the posterior uterine wall and the angles of uterine incision was oblique. No uterine anomalies or fibroids were seen. Uterine wound closure was done in two layers after ensuring that there were no injuries notes to the uterine vessels and other pelvic organs. Both the mother and the neonate were in stable condition post operatively and were discharged from hospital 72 hours later.

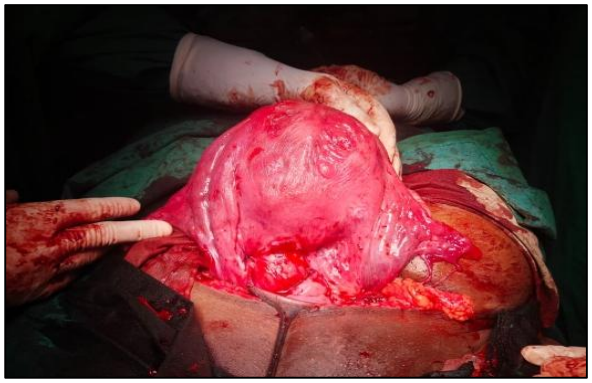

Figure 1: Anterior surface of the uterus, note the rotated uterus by tracing the round ligament.

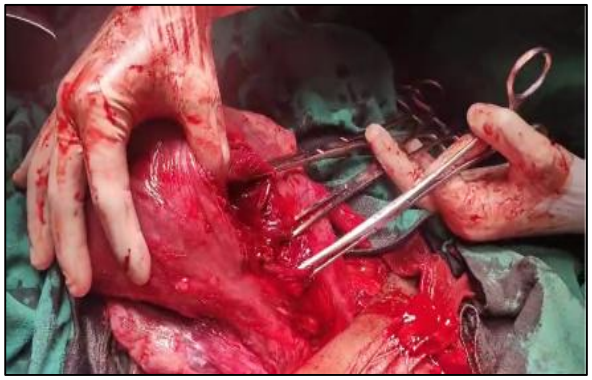

Figure 2: Before closure of the posterior uterine surface hysterotomy wound.

Figure 3: After closure of the posterior uterine surface hysterotomy wound.

DISCUSSION

It has been reported in literature that in both the nongravid state and all trimesters of pregnancy, uterine torsion can occur. Uterine torsion, originally described in 1861, is an extremely rare obstetric condition, with just over 200 incidences reported in the last century.[2] Maternal age or parity are not known to be predisposing to uterine torsion. Numerous risk factors are listed, however the etiopathogenesis is unclear. The most common explanation is of uterine asymmetry caused by uterine fibroids or mullerian abnormalities, but additional factors include pelvic adhesions, abdominal or ligamentous laxity, and fetal malpresentation. Just 16% of cases are idiopathic.[3]

The degree of rotation determines the severity of clinical presentation. The reported cases have either been asymptomatic as seen in the present case, or show a spectrum of presentations such as obstructed labor, intestinal or urinary symptoms, abdominal pain, uterine hypertonus, antepartum haemorrhage, fetal distress, intra uterine fetal death and maternal shock. This kind of vague clinical presentation makes antenatal diagnosis of uterine torsion challenging, and is only diagnosed after laparotomy. The differential diagnosis is that of acute pain abdomen and antepartum haemorrhage, i.e., placental abruption, uterine rupture, obstructed labour, pelvic mass torsion or rupture and acute appendicitis.[4]

The degree of rotation and the stage of pregnancy determine the maternal prognosis in cases of uterine torsion. The period between 20 and 28 weeks of gestation is when the highest mortality rates occur (17%), and these rates decline with increasing gestational age. A 36% fatality rate has typically been associated with torsion of 180 to 360°. Both gestational age and the degree of torsion have an equal bearing on the fetal outcome. 71% of cases with torsion of 180 to 360° resulted in intrauterine fetal death.[5]

The diagnosis by trans-abdominal B mode ultrasonography has been reported. When ultrasonography reveals an aberrant placement of the ovarian arteries that pass in front of the lower uterine segment or a change in the placenta location during pregnancy, it can result in accurate diagnosis but the sign is difficult to pick up and requires high degree of suspicion and skill by the radiologist.[6] The intrinsic safety of magnetic resonance imaging (MRI) and its ability to accurately show abdominal and pelvic disease in pregnant patients with acute abdominal pain. Uterine torsion could then be diagnosed antenatally in such situations. In situations where the woman presents in shock, it precludes the diagnosis by MRI.[7]

Due to various indications previously mentioned, such cases are taken for emergency laparotomy. When derotation of the uterus is not possible, a transverse incision in the lower posterior uterine segment, if feasible,

is a safe choice.[8] Vertical caesarean incision has been advised by some authors avoiding incision on lateral sides as it is associated with increased risk of vascular or ureteral injury.[9]

CONCLUSION

When uterine torsion occurs unexpectedly, posterior uterine incision is a viable and time-saving procedure. A safe obstetric result is ensured by early recognition, handling of such cases in well-equipped centers and by senior obstetricians, and intraoperatively by uterine detorsion and careful examination of surrounding structures for injuries.

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