

## Uterine Torsion Diagnosed during Cesarean Section in a 26-Year-Old Female at Bugando Medical Centre, A Case Report

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### ABSTRACT

*Uterine torsion is considered a rare condition in humans as compared to veterinary medicine. Despite being less commonly reported, it is associated with morbidities and mortalities, both fetal and maternal. When the rotation of the uterus is more than 45 degrees on its longitudinal axis, it is considered pathological.*

*We report a 26-year-old lady, prime gravid, at the Gestational age of 40 weeks who stayed in labor for 8 hours with 6 centimeters cervical dilatation despite adequate uterine contractions. She was delivered by cesarean section due to intrapartum fetal surveillance found to be bradycardic (fetal heart tones ranging from 108 to 110 beats per minute) regardless of the maternal changing position. A live baby boy with Apgar score of six at first and eight at fifth minutes respectively birth weight 3.7 kilograms was delivered and intraoperatively, uterine torsion of 180 degrees was diagnosed. We present this case as a rare diagnosis that is associated with significant morbidity and mortality of both maternal and neonates.*

### Case Presentation

The patient reports starting labor pains simultaneously at home. She spent two hours before being taken to Bugando Medical Center (BMC) for motoring and delivery. The labor was not associated with vaginal leakage, not associated with vaginal bleeding, and the fetal movement was normal. Eight hours later, an artificial rupture of the membrane was done, and it was found to be grade 2 meconium-stained liquor, with a reduced fetal heart rate. She reports uneventful antenatal care visits, normotensive, normal hemoglobin levels, and free from all tested infections.

A maternal systemic review, of the respiratory system, showed that she had no chest pain, no difficulty breathing, and no rapid breathing with no cough. The cardiovascular system was also remarkable with no awareness of heartbeat, no shortness of breath no difficulty in breathing on lying flat orthopnea, no 'air-hunger' at night, no lower limb, ankle swelling no facial puffiness. On the genitourinary system, there was no painful micturition, no hematuria, no waking to urinate at night (no Urgency; no

overwhelming desire to micturate, no Incontinence; no inability to control urination), and no reduction in urine output.

Physical examination of both general and systemic assessments revealed normal findings, however, fetal surveillance revealed bradycardia regardless of maternal positions, and upon vaginal examination and membranes rupture, meconium-stained liquor and cervix was 6 centimeters dilated, the diagnosis of none-reassuring fetal status was reached and hence she was planned for emergency cesarean section.

Intraoperatively upon entering the abdominal cavity, the ureterovesical peritoneum was not well identified, and severely edematous adnexa and some engorged vessels were found crossing over the lower uterine surface.

We diagnosed the torsion and tried to rotate the uterus but it was impossible.

An immediate transverse incision was made aiming in saving the baby because of fetal bradycardia. A live baby boy of 3.7-kilograms weight was delivered. Apgar scores were 6 at 1st minute and 8 at 5th -minute respectively.

After the delivery, we confirmed the uterus was rotated to the left by 180 degrees, and the incision was performed on the posterior wall of the uterus.

The posterior uterine wall was closed in two layers, homeostasis was achieved with difficulties and the patient bled about 1litre because of uterine atony, uterus was examined and there was no uterine anomaly detected.

Upon easy reduction, the anterior uterine segment was found to be under-developed while the posterior uterine segment was well-developed. Post operatively the recovery process was unremarkable, discharged on the third day and she was followed up on the 7th, 21st, and 28th days postpartum she was doing fine. She was counseled on contraceptives and she agreed to use the intrauterine device she was also advised for elective cesarean section in future deliveries.



**Figure 1:** Anterior part.



**Figure 2:** Posterior part.

## Discussion

Dextrorotation of the gravid uterus less than 45 degrees is a common physiological finding. Rotation of the uterus beyond 45 degrees is pathological uterine torsion and is extremely rare in pregnancy. It is considered a “once in a lifetime diagnosis” for most obstetricians. It is only sporadically reported in medical literature until 1992; only 212 cases have been reported in the literature [1].

Uterine torsion during pregnancy can be associated with significant morbidity and mortality of both the mother and fetus [2].

The mechanism of perinatal morbidity and mortality has been abruption secondary to venous engorgement and retro placenta pressure and torsion affecting blood flow through uterine arteries.

In this case report, we documented the rare occurrence of 180-degree uterine torsion in a pregnant woman which led to vascular insufficiency causing fetal bradycardia. As has been reported in other cases, diagnosis before the operation is difficult because of its rarity and nonspecific clinical characteristics, we diagnosed our patient after extraction of the baby, during cesarean section because of the unexplained cause of fetal bradycardia [2].

Most cases have non-specific associated symptoms, including fetal heart rate decelerations and maternal bradycardia, severe abdominal pain, hypotension, or vaginal bleeding. Approximately 11% are asymptomatic. Therefore, it typically is not identified until intra-operative evaluation in the setting of an emergent cesarean section [3].

Other symptoms may include failure to progress in labor, uterine atony, hemorrhagic shock, urinary and intestinal symptoms, placental abruption, fetal distress, or intrauterine fetal demise. 1-3 Uterine torsion carries a significant fetal mortality rate estimated at 12% to 18%. The associated maternal mortality rate is dependent on the stage of pregnancy, with higher rates reported in the late second trimester and decreasing thereafter [3].

Different degrees and durations of torsion result in various symptoms in which, according to Jensen et al, include maternal shock, abdominal pain, obstructed labor, vaginal bleeding, intestinal or urinary complaints, and hypertonic uterus.

In our case, uterine torsion did not present with any of the mentioned symptoms and was in fact asymptomatic. There were no clinical signs or symptoms suggestive of torsion prior to the incision. The only clinical presentation was of fetal bradycardia and failure of labor to progress which can be caused by any other causes.

Reported cases associate uterine torsion and asymmetry with uterine myomas or uterine developmental anomalies, and some authors have proposed that Certain maternal body movements or posture and positions might trigger the rotation of the uterus in the presence of preexisting structural abnormalities [4]. Though we couldn't find any risk factors for uterine torsion in our patient.

Studies shows that, if the patient presents in early pregnancy, de-rotation followed by hysterotomy and removal of underlying pelvic pathology is the preferred modality of treatment; in cases with unsuccessful de-rotation, posterior hysterotomy can be performed. Near-term laparotomy followed by de-rotation of the uterus and caesarean section is the preferred treatment.

Defining anatomical landmarks prior to incision is important to prevent inadvertent injury to blood vessels and other organs [4].

But, the greater the degree of torsion increases the possibility for torsion of uterine arteries to result in ischemia and subsequent necrosis of the uterus, requiring a hysterectomy.

According to the literatures, a posterior low transverse incision would be needed to deliver the infant in such conditions, which is in turn accompanied by a risk of damage to the uterine vessels as well as the urethras.

Some studies have recommended implementing vertical incision in the posterior upper segment as a safer approach [5].

The impact of a posterior uterine incision on future reproductive outcomes especially in the presence of anterior uterine incision is unknown. Laparoscopy and hysteroscopy following a posterior uterine incision has shown appropriate healing but the lack of substantive evidence supporting the safety of vaginal birth after posterior hysterotomy has prompted some authors to pursue contraception (tubal ligation) at the time of operation or recommend an elective caesarean section at early term gestation [4].

The impact on intra-abdominal adhesion formation and significance of symptoms of uterine rupture with posterior hysterotomy is unknown.

In our case, we made posterior lower segment incision and it was successfully repaired. Since bilateral tubal ligation couldn't be performed, the patient was advised on alternative contraception and for elective caesarean section on her next pregnancy.

In previous case reports, the prognosis of uterine torsion was found to depend upon pregnancy stage and rotation degree. The highest rates of maternal mortality happen during the 20th to 24th weeks of gestation (17%), the rates would however decrease as gestational age increases.

Despite the rare cases of death (only 1 since 1960), uterine torsions of 180-360 degrees increase maternal and perinatal mortality rates to as high as 36% and 71%, respectively [5,6].

Luckily in our case, the patient had no complications and the mother and her infant were both in good condition, and the operation made an excellent recovery.

### Conclusion

Although uterine torsion is a rare obstetric event, it has nonspecific symptoms and may result in severe complications. Timely and accurate preoperative diagnosis of uterus torsion and immediate surgery are of utmost importance to save both the mother and the baby. Moreover, in order to avoid serious vascular injuries, the uterus needs to be assessed for rotations before making any incision during a cesarean section [5].

### References

1. Varsha S, Devi GP, Bharathi T, et al. Case Report A twist in the diagnosis and the uterus ! A case report of third trimester uterine torsion. 2015; 4-7.
2. Choi YH, Lee G. Uterine Torsion in Third Trimester Pregnancy. 2016; 27: 67-69.
3. Gross SJ, Gnade C, Coyne L. Diagnosis of uterine torsion during cesarean section a case 14 series. 2020; 10: 1-6.
4. Sachan R, Patel ML, Sachan P, et al. Complete axial torsion of pregnant uterus with leiomyoma. 2014; 3-5.
5. Homam H, Moukhah S, Alizadeh M. Science Direct Asymptomatic torsion of a gravid uterus. Taiwan J Obstet Gynecol. 2013; 52: 599-601.
6. Mokhtar HN, Faridz SM, Ismail R, et al. Case Report Uterine torsion in pregnancy expect the unexpected case report. 2020; 9: 3473-3476.