

Uterine Torsion in Third Trimester Pregnancy

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The preoperative diagnosis of uterine torsion is very difficult due to the rarity of this disorder and its nonspecific clinical course. A primigravida woman visited our hospital with severe abdominal pain at 34 weeks of gestation. Emergency cesarean section was carried out due to development of fetal distress and severe abdominal pain. During the cesarean section, we noticed the uterus was rotated 180 degrees and the torsion was corrected after the delivery by making a vertical incision at the posterior uterine wall. High degree of suspicion and prompt management are important factors contributing to good prognosis of uterine torsion.

Key Words: Uterus, Torsion, Pregnancy

Uterine torsion is a rare condition and which gynecologists call as a 'once-in-a-lifetime' diagnosis.¹ Uterine torsion during pregnancy can be associated with significant morbidity and mortality of both the mother and fetus.^{2,3} However, preoperative diagnosis is very difficult and most cases are diagnosed during operation due to its rarity and nonspecific clinical course. Here we present a case of uterine torsion in pregnancy.

Case Report

A 36-year-old primigravida at 34 weeks of gestation visited our hospital with sudden onset of abdominal pain. Ultrasonography showed a fetus with transverse presentation. Fetal monitoring using

cardiotocography was initially non-assuring and proceeded to prolonged deceleration. Placental abruption was suspected based on the patient's symptoms and abnormal fetal monitoring findings. Emergency cesarean section was performed. On entering the abdominal cavity, uterovesical peritoneum could not be indentified and severely edematous adnexae and extremely engorged vessels were found crossing over the lower uterine surface. An immediate vertical incision was made because of the fetal transverse presentation and the extremely engorged vessels over the lower uterine surface. A live female baby of 2.22 kg weight was delivered. Apgar scores were 5 at 1-minute and 7 at 5-minute. After the delivery, we confirmed the uterus was rotated to the left by 180 degree and the incision was performed on the posterior wall of the uterus (Fig. 1). The posterior uterine wall was closed in two layers and the uterus was detorted by 180 degree. No uterine anomalies or fibroids were seen.

The mother and the newborn recovered well and were discharged on the 4th postoperative day.

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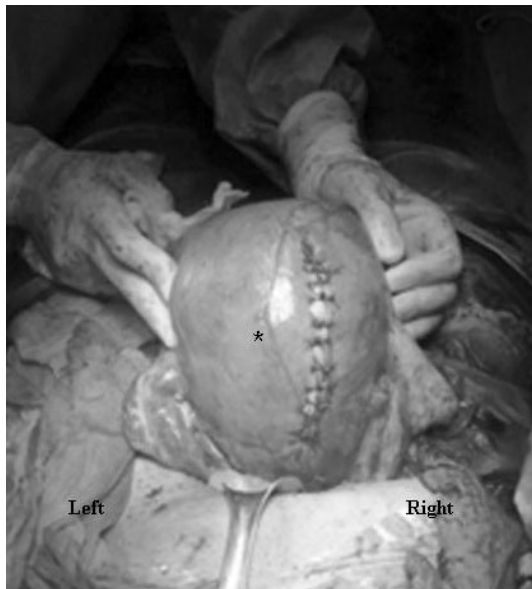


Fig. 1. Posterior longitudinal uterine incision was performed. After uterine detorsion, returning to its normal anatomic position. An asterisk (*) indicates posterior part of the uterus. The left of the image is the left site of the patient.

Discussion

Uterine torsion is defined as rotation of the uterus of more than 45 degrees on its long axis.⁴ The exact etiology has not been elucidated up until now. Unexplained torsion was seen in most cases; there was normal anatomy in all age groups, all parity, and all stages of pregnancy. However, there are some conditions that are frequently complicated by uterine torsion. Associations with abnormal fetal presentation, active fetal movement, congenital uterine anomalies, pelvic adhesion, pelvic tumor and maternal trauma such as automobile collision have been reported.^{3,5,6} Dextrorotation of the uterus is the most common finding, following the normal orientation of the myometrial fibers and physiologic rightward shift during pregnancy.^{5,7} However, laevorotation occurs in one-third,⁸ as well as the case of the present report.

Clinical diagnosis of uterine torsion in pregnancy is very difficult because of its rarity and non-specific symptoms. There may be painful uterine contractions, tenderness, vaginal bleeding, birth obstruction by cervical dystocia, maternal shock, intestinal or urinary complains, and fetal distress. This case also showed severe abdominal pain and fetal distress. Due to its symptoms, it should be differentiated with the diagnosis of abruption placenta.⁹ Theoretical, it is reasoned that acute symptoms occur because uterine torsion causes direct compression of the uterine veins and perhaps the ovarian veins, which is similar to the reasoning behind onset of acute symptoms in placenta abruptio due to venous outflow obstruction acutely increasing vascular pressure within the placental cotyledon.⁵ Regarding image finding helpful for objective diagnosis of uterine torsion, x-shaped upper vagina appearance on MRI or a narrow upper vagina was suggested.¹⁰ Also, examining the orientation of the uterus by placental localization on USG can be helpful.¹ Laparotomy is necessary in all cases. Ideal management involves repositioning of the uterus before proceeding with cesarean section.⁴ However repositioning of near term to term pregnancy uterus before delivery of fetus may not be possible. Posterior vertical incision on the uterus is a safe choice because posterior low transverse incision may cause injury to the twisted uterine vessel and ovarian vessels. In this case, there were no findings of adnexa torsion and prophylactic bilateral shortening of ligaments was not done. The degree and duration of uterine torsion are risk factors that may contribute to fetal and maternal mortalities. Maternal prognosis is good after surgical treatment. However, perinatal mortality remains as high as up to 12–18 %.^{2,3}

Although uterine torsion is very rare, obstetricians

must have suspicion when patient show symptoms of acute severe abdominal pain and fetal deceleration as shown in placenta abruptio.

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