CASE REPORT

Torsion of a Term Uterus

Farhat ul Ain Ahmed, Afshan Ambreen, Sobia Zubair and Noori Kiran

ABSTRACT
Torsion of the pregnant uterus, at term, is a very rare event in obstetric practice. It is associated with high perinatal mortality. We are reporting a case of uterine torsion, where a booked second gravida with previous lower segment cesarean section underwent an emergency cesarean section due to severe lower abdominal pain, persistent fetal tachycardia and poor Bishop Score. Following delivery of baby and placenta, uterus untwisted on itself through 180 degrees and it was realized that the incision had been made on the posterior wall of the uterus. Bilateral tubal ligation (BTL) was done after proper informed consent. This decision was based on unavailability of data on safety of future pregnancies in patients with both anterior and posterior uterine scars. Efforts need to be made to develop consensus for management of these cases, in future.


INTRODUCTION
Dextrorotation of a gravid uterus is a normal finding but however, rotation beyond 45 degrees or torsion of entire uterus is a rare finding in obstetrical practice. The earliest reported age for uterine torsion during pregnancy is in the sixth gestational week and the latest in 43 week.1 It is a fatal condition for the fetus. Increased pressure in placental cotyledons caused by uterine venous obstruction can lead to abruption and fetal distress. When it progresses to uterine artery obstruction, placental perfusion reduces, which can result in fetal demise.2 So, early recognition and correction of torsion is mainstay of its management. Maternal prognosis is good after surgical treatment; however, prenatal mortality is high.3

We report a case of uterine torsion at term.

CASE REPORT
A booked second gravida with previous lower segment cesarean section came at 37 weeks of gestation with lower abdominal pain. On examination, the patient was vitally stable. Per abdominal examination showed fetus with longitudinal lie, cephalic presentation and reassuring fetal heart rate. There were no palpable uterine contractions, and scar tenderness was negative. No blood or discharge seen on per speculum examination. Vaginal examination demonstrated closed, full length, firm cervix. Urine examination report was normal. Her ultrasound, done 2 days ago, had reported intrauterine pregnancy of 36 weeks with scar thickness of 4.5 mm.

The patient was managed conservatively, initially with antispasmodics but emergency lower segment cesarean section was carried out after 12 hours due to excruciating lower abdominal pain and persistent fetal tachycardia. Pfannenstiel incision was made and lower uterine segment was exposed; bladder flap could not be made. A female baby of 3.23 kg was delivered with Apgar Score of 7 and 9 at one and five minutes, followed by complete delivery of placenta and membranes. There were no unusual findings at this point of surgery.

After the delivery, uterus untwisted itself through 180 degrees and it was found that the incision had been made on the posterior wall of the uterus. Bilateral tubal ligation (BTL) was done after proper informed consent. This decision was based on unavailability of data on safety of future pregnancies in patients with both anterior and posterior uterine scars. Efforts need to be made to develop consensus for management of these cases, in future.

DISCUSSION
Labbe reported the first case of uterine torsion in 1876, since then it has been reported rarely. Uterine torsion is defined as rotation of the uterus of more than 45 degrees on its long axis that occurs at the junction between the cervix and the corpus of the uterus.2 The extent of the torsion can range from 60 to 720 degrees, with dextrorotation (rotation to right) in two-third and levorotation in one-third of cases.2

No significant associated risk factors are described in literature. Wilson et al. summarized 38 cases of uterine torsion from 1996 to 2006 and concluded that in most of the cases it was normal pregnancy with typical pelvic..
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anatomy. Jensen, in 1992, reviewed 212 cases from various countries and concluded that pelvic pathology could be a cause of uterine torsion. Uterine myoma, uterine anomalies especially bicornuate uterus, pelvic adhesions, ovarian cysts, abnormal presentation and/or anomalies of fetus, abnormalities of maternal spine and pelvis, and abdominal massage during labour by birth attendants, have been described as possible causes of uterine torsion during pregnancy.

Most cases, present with abdominal pain and tenderness, are diagnosed only at laparotomy. Other presenting symptoms can be birth obstruction, vaginal bleeding, shock, urinary and intestinal symptoms. Approximately, 11% of women with torsion of uterus are asymptomatic. Physical examination and ultrasonography may be insufficient for diagnosis. Only vaginal examination reveals the cervical canal to be twisted and closed. Ultrasound has some diagnostic role in cases of regular pregnancy follow-up, when changes in placental localization on ultrasound could be a sign of uterine torsion. Magnetic resonance imaging is currently the method of choice for establishing diagnosis by demonstration of an X-shaped configuration of the torsion site. Normally, H-shaped configuration is seen when MRI film/slice is taken at the level of upper vagina. Early recognition and emergency laparotomy for correction of torsion is mainstay of treatment. Maternal prognosis is good after surgical treatment; however, perinatal mortality is high as 18%. The authors reviewed 19 cases of uterine torsion cited in PubMed, in English language, from the year 2000 to January 2015. Delivery of the baby was accomplished by anterior uterine wall incision in 8 cases (after correction of torsion) and posterior uterine wall incision in 11 cases, either due to irreducible uterine torsion or inability to recognize torsion before delivery of baby, as in this case. Out of the 11 patients with posterior segment hysterotomy, only 4 had previous anterior uterine segment scar. Sterilization via modified Pomeroy’s method was done in 2 patients while subtotal hysterectomy in another patient.

Currently, there is no safety data on having subsequent pregnancy with anterior and posterior uterine scars and there are no recommendations as to how to manage these pregnancies. Royal College guidelines state increased risk of maternal morbidity with increasing number of cesarean deliveries through anterior uterine wall, like scar dehiscence/rupture, placenta accreta, injury to bladder, bowel or ureter, ileus, the need for postoperative ventilation, intensive care unit admission, hystereotomy etc. There is no data quantifying these risks in association with repeat cesarean in a patient having scars on both anterior and posterior uterine walls. Presumably, in later case the morbidity will be much higher due to thinning of both lower uterine segments in third trimester and much less healthy/uncarred tissue as compared to patients having repeat anterior wall cesareans.

More work needs to be done in order to calculate absolute risk of rupture, pre-term delivery, placenta accreta, and other comorbidities in these patients, so as to develop consensus regarding management of future pregnancies in such cases.

REFERENCES