

## Third Trimester Uterine Torsion

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**Abstract:** This is a case report on a case of post dated pregnancy with previous lower segment cesarean section planned for elective section with asymptomatic torsion of term gravid uterus with uneventful outcome of both mother and the baby.

**Key words:** Uterus • Torsion • Pregnancy

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### INTRODUCTION

Rotation of the gravid uterus is a normal finding in the third trimester of pregnancy. However a pathologic rotation of the uterus beyond 45 degrees - torsion of the entire uterus is rarely seen in obstetrical practice. We report here a case of uterine torsion and review of cases reported to date.

**Case:** The patient was a 34 years old gravida 2 para 1 Live 1 at 39 weeks gestation with a single on pregnancy. She was a case booked and immunized outside. Her prior obstetrical history included one complicated term cesarean delivery and the current pregnancy had been uncomplicated until the date of presentation. The patient's pre-pregnancy BMI was 29.5 kg/m<sup>2</sup> and her general health had been excellent throughout pregnancy. She came to the obstetric unit for elective repeat LSCS with only compliant of mild low back pain.

On examination the maternal vital signs were stable. The abdomen was pendulous. The fetus was found to be in a longitudinal lie, with fetal head lower pole. The uterus was not acting and relaxed. There was no vaginal blood or fluid loss. Electronic fetal monitoring was instituted and a reassuring fetal heart rate was noted. Vaginal examination demonstrated a cervix with a firm consistency and no significant effacement or dilatation.

As the patient was term with previous LSCS an elective repeat Caesarean section (CS) was recommended. The patient consented to the procedure and was taken to the operating room. Under spinal anaesthesia, a Pfannenstiel incision was made and the lower uterine segment was exposed; a bladder flap was not made. The lower segment was seen to have plenty of engorged blood vessels. There were no adhesions. A transverse lower segment uterine incision was made and the baby, a male weighing 3.420 g, was delivered. Apgar scores were 8 at one minute and 9 at five minutes. The placenta was removed manually.

When the uterus was examined again, uterus was found to be rotated to 180 degree. Detorsion was done. The uterus was then brought through the incision and the hysterectomy incision found to be in the posterior lower uterine segment. The uterine incision was symmetrical on either side of the posterior midline of the uterus. The uterine incision was closed with a double layer of delayed - absorbing suture (Polyglactin 910). Close examination of the uterus and adnexa revealed no abnormalities. Patient opted for sterilization and the same done. The patient made an uneventful recovery and was discharged home on the third postoperative day.

The infant was initially admitted to the special care nursery for transient tachypnea of the newborn but was discharged home in good condition with the mother on the third post - operative day.

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Posterior surface of uterus is seen with cesarean incision. Posterior surface is identified by attachment of ovarian ligament lateral to incision site. Deliberately, the cesarean incision was given on posterior surface of uterus.

## DISCUSSION

The first report of uterine torsion in the human was published by Labbe in 1876[1,2 ] Since then, uterine torsion has been reported rarely, perhaps because of the nonspecific presentation[1,3-7] and generally successful outcome for mothers.<sup>7</sup> Nevertheless, it is a potentially dangerous complication of pregnancy.

We have conducted a review of the literature (Table [1-6, 8-34] related to 38 cases of uterine torsion reported. One case resulted in spontaneous abortion,<sup>1</sup> and six in stillbirth [8-13 ] This fetal mortality rate (18 %) is higher than that reported by Jensen in 1992 (12%) [7].

The women in these 38 cases were aged from 17 to 43 years. The number of previous pregnancies varied from none to 11 and none of the women had a previous uterine torsion. One case was twin pregnancy, [14] and the remainder was singleton pregnancies. Two cases were detected earlier in pregnancy [1, 28]; the remainder in the third trimester.

Only one case of uterine torsion was diagnosed before labour: an abnormal vaginal examination led the clinicians to arrange an MRI, which detected uterine torsion.<sup>27</sup> Most cases (n=37) were undetected before the onset of labour or emergency or scheduled CS. In these cases, the diagnosis of uterine torsion was confounded by other diagnoses, such as abnormal fetal heart rate, [2, 3, 8, 9, 14, 15, 29] failure to progress in labour, [8, 13, 14, 16] or suspected abruption.<sup>2</sup> Coexisting conditions included uterine fibroids [4, 20, 34] adhesions, 4,916,22 adnexal mass,<sup>34</sup> fetal malpresentation, [5, 9, 14-19] and

traumatic injury. [3] One case was identified during a termination of pregnancy [28] One woman died, [11] but all of the others made a full recovery, although two required a peripartum hysterectomy for heavy bleeding, [10, 17] and one underwent hysterectomy and oophorectomy because of development of necrosis in the uterus and ovaries [13] Information is available for only one subsequent pregnancy in which a repeat CS was successfully performed [9].

Our literature review was limited to English Language reports cited in Pub Med, from 1966 to January 2006. An earlier review by Jensen reported 212 cases from a variety of countries [7] Although the number of cases reported in the literature is limited, it is possible that this condition is underreported.

Other authors, such as Jensen [7] have suggested that pelvic pathology could be a cause of uterine torsion. Our review has not shown this to be the case, but rather that uterine torsion occurs during a normal pregnancy and within a typical pelvis.

Our case did not share many features with other reported cases. Our patient presented with a singleton pregnancy in the third trimester. The patient was asymptomatic except for a mild low back pain. As in our case, uterine torsion has been discovered incidentally at CS performed through the posterior lower uterine segment [2, 5,6, 20-25].

The common risk factors reported in association with uterine torsion are often non-specific and therefore not always useful in heralding this uncommon complication of pregnancy. Our experience and our literature review

indicate that the possibility of uterine torsion should always be considered as part of a differential diagnosis of complications in the third trimester of pregnancy. Incorporating into routine practice the palpation of round ligaments at the time of CS would most likely prevent inadvertent hysterotomy at sites other than the anterior lower segment.

We are unable to provide evidence - based recommendations for women who have had a uterine torsion and who wish to have future pregnancies. The risk of uterine rupture with a prior posterior lower segment incision compared with the risk following an anterior lower segment incision remains unknown. In the absence of evidence, we recommend a CS for any subsequent deliveries. Theoretically, a repeat CS is safer because it avoids the possibility of a labour - associated uterine rupture.

#### **ACKNOWLEDGEMENTS**

The woman whose story is told in this case report has provided signed permissions for its publication.

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