

## CASE REPORT

### Uterine Torsion, Leading to Posterior Uterine Wall Incision at Cesarean Section

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#### ABSTRACT

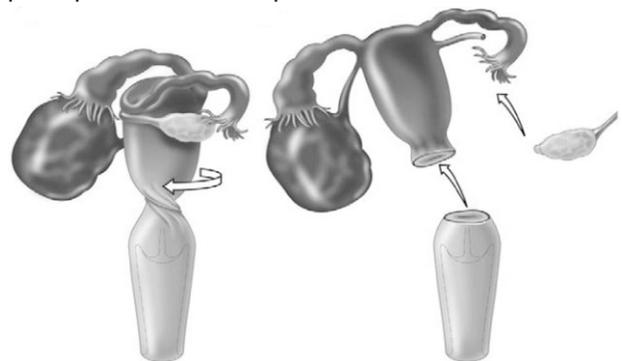
Any rotation of uterus along its long axis which is more than 45 degrees at the junction between corpus and cervix [Figure 1] is called uterine torsion.<sup>1,2</sup> Torsion of uterus is a rare phenomenon, and the true pathogenesis of the condition is still not clear.<sup>3</sup> Here we present a case of complete uterine torsion in a 37-year-old lady who underwent cesarean section at 39 weeks of gestation due to oblique lie. This patient had two small uterine fibroids and, in the past, she had right salpingectomy for right tubal pregnancy. Intra-operatively, due to complete torsion of uterus, inadvertently incision was given in the posterior wall of uterus considering it as anterior wall, but hemostasis was successfully secured and post operatively patient recovered well. This case illustrates that while doing cesarean section on gravid uterus especially in the background of previous pelvic surgery and in the presence of fibroids, obstetricians must exercise caution to identify torsion of uterus which is through a rare but significant uterine pathology that can cause incorrect posterior uterine wall incision.

**Key Words:** *Uterine Torsion, Fibroids, Posterior Wall Incision.*

#### Case

A pregnant lady in her fifth pregnancy presented in gynecology OPD at 39 weeks of gestation with oblique lie. Previously she had three vaginal births and also had right salpingectomy for tubal pregnancy. After laparotomy she had conceived after a significant period of infertility. Course of her index pregnancy had remained unremarkable till her last visit in OPD. Her obstetrical ultrasound revealed a single live fetus in oblique lie with adequate liquor and lower edge of placenta was away from cervical os. Ultrasound also revealed a small 4 ×4 cm fibroid in the anterior uterine wall. She was booked from OPD for elective cesarean section. After preoperative preparation, cesarean section was performed. Intra operatively, bowel was found adherent with both uterus and anterior abdominal wall especially on left side. Right adnexa appeared as a totted band of peritoneum that after crossing in front of the uterus became adherent with the left side of uterus. It was pushed aside, and uterine incision was made. A small fibroid about 3 ×4 cm in the course of uterine incision got separated. A female baby was delivered

with good Apgar scores, placenta and membranes were removed completely and then uterus was exteriorized after adhesiolysis. Only on exteriorization of uterus it could be identified that uterus had complete torsion of 180 degrees along its long axis and seemingly anterior wall of uterus was in fact its posterior wall. Uterus was closed in layers and then interiorized. Hemostasis was successfully secured, and an intraperitoneal drain was left in situ in pouch of Douglas and abdomen was closed in layers. Estimated blood loss was about 1.0 liter and patient received two units of blood. Postoperatively she was kept under observation in high dependency area. Drain was removed after 24 hours of surgery. Postoperatively her hemoglobin was 8 g/dl while her pre-op hemoglobin was 10.1g/dl. Patient was discharged from hospital on third postoperative day along with her baby. She was also well on her postoperative follow-up in OPD.



**Fig. 1: Torsion of Uterus Caused by Rotation of Uterus along its long axis at the Junction between Corpus Uteri and Cervix**

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## Discussion

Though the true etiology of uterine torsion is still unknown, but a number of conditions have been proposed causing this pathology which include adhesions due to previous surgeries, fibroid uterus, ovarian tumors, uterine malformations and fetal malpresentation.<sup>1-3</sup> In our case patient has pelvic adhesions due to previous surgery for right salpingectomy, two uterine fibroids in the anterior uterine wall and fundal region, and also the lie of baby was oblique. In accordance with previous literature all these factors may have caused uterine torsion in our case. Uterine torsion can develop at any maternal age, parity, or gestational age. As presentation can be non-specific with or without any symptoms,<sup>4,5</sup> in our case due to the absence of any symptoms as well as due to the rarity of the condition, uterine torsion was diagnosed only at the time of cesarean section. The degree of uterine torsion may vary from 45 degrees to 180 degrees and in literature cases with even 720-degree torsion have been reported.<sup>4-6</sup> In our case as the right adnexal structures became adherent with adnexal structures on left side, apparently this may have caused a large torsion in uterus of about 180 degrees.<sup>3</sup> Theoretically, pelvic anatomical misalignment caused by uterine torsion may be one of the elements for secondary subfertility after laparotomy, in this case. Besides uterine torsion separation of small myoma across the uterine incision was managed without much trouble and also previously cases of unplanned but inevitable myomectomies at the time of cesarean sections have been reported without complications.<sup>7</sup> In our case despite the undiagnosed uterine torsion the good handling of cesarean section by the expert

operator ensured good maternal and fetal outcome but in the literature a 12-15% perinatal mortality rate has been reported in such cases.<sup>4,8</sup> This case emphasizes that in the presence of risk factors of uterine torsion obstetricians should be cautious to recognize the pelvic anatomical alignment completely in order to avoid incorrect uterine incision and the resulting increased maternal and fetal morbidity.

**Conflict of Interest:** There is no conflict of interest among authors related to this manuscript.

**Patient Consent:** Informed consent for cesarean section was taken.

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