

## Uterine torsion: A case report

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### Abstract

In uterine torsion, the uterus twists more than 45 degrees around its long axis at the junction between the cervix and the corpus. Probably due to rarity only few cases are reported where detorsion was either not possible or posterior uterine wall opening, more tactfully incisions inflicted transversely, have been the only way out.

Reported herewith is a 26 yr, third gravida at 38 weeks pregnancy, with previous caesarean in early labour and underwent cesarean for rupture of the membrane, was realized to have an incision inflicted in the posterior wall of the uterus, 3 cm above the disposition of uterosacral ligament amidst severe torsion of the uterus that was successfully detorted avoiding hysterectomy, in view of the young age.

**Key words:** uterine torsion, term pregnancy complication, uterine rotation.

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### Introduction

Rotation of the gravid uterus is a normal finding in the third trimester of pregnancy, but rotation of uterus beyond 45 degrees is pathological and torsion of the entire uterus is rarely seen in obstetrical practice. We hereby report a case of uterine torsion encountered in our clinical practice making review of similar cases with varied presentation commenting up on a definitive surgical approach.

### Case

A 26 year old third gravida woman was admitted to obstetric emergency in our hospital with 38 weeks pregnancy with a history of previous caesarean section in early labour. Regarding her obstetrical history she had an emergency caesarean section done 2 yrs back for non progress of labour. There were no records available but she was told about the presence of a small fibroid near the cervix by the operating surgeon. Second pregnancy was a first trimester spontaneous abortion. Her present pregnancy had been irregularly supervised. Earlier ultrasound scans done at 28 weeks reported a fibroid of 4.5 X 4 cm at lower uterine segment

but further scans did not mention the same. She was admitted with us in third trimester at 32 weeks with threatened preterm labour following which she presented to us at 38 weeks with premature rupture of membranes. On examination frank leakage was present with an unfavorable bishop's score. The patient refused a trial for vaginal delivery and was taken up for caesarean. Peroperatively tortuous vessels were seen to be lying just beneath the peritoneum. Dense adhesions were present between lower uterine segment, bowel and uterine fundus. Bilateral ovarian ligament along with round ligament and fallopian tubes were adherent to each other and to the anterior surface of the uterus at the level of the uterine artery. The uterine incision was given after identifying the uterovesical fold of peritoneum and the baby was delivered. Following the baby delivery and delivery of placenta, when the adnexa was looked for; then only the uterine torsion of 180 degrees was noted. A cervical fibroid of 5 X 5 cm was present on the right side buried in through the broad ligament. Unknowing, the incision had been made on the posterior lower segment of the uterus, which was just 3 cm above the uterosacral ligament. Amazingly the bladder was adherent to the lower aspect of the posterior surface of the uterus (Figure 1). The

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Figure 1. Uterine incision is on the posterior segment of the uterus, bladder is seen below the incision

incision was closed with polygalactin sutures in double layer and hemostasis ensured. She had a normal post-operative course and was discharged on 6<sup>th</sup> post op day with advice for further deliveries by cesarean section.

**Comment**

The first ever reported case of uterine torsion was published by Labbe<sup>1,2</sup> in 1876, since then very few

cases of uterine torsion has been reported, perhaps because of the non specific presentation<sup>1,3-7</sup>. In uterine torsion, the uterus twists more than 45 degrees around its long axis at the junction between the cervix and the corpus. The extent of torsion is most often 180 degree. However, cases involving 60-20 degree have also been described. Dextrorotation is the most common finding being the normal orientation of the myometrium fibres. In rare situations the torsion is of sufficient degree to interfere with the circulation resulting in symptoms such as acute abdomen and also threatening fetal survival due to restricted blood supply or by causing abruption. Authors such as Jensen<sup>7</sup> have suggested pelvic pathology to be a cause of uterine torsion. Entities reportedly associated with torsion include the following- abnormal fetal presentation (eg transverse lie), distorted uterine shape as in uterine leiomyoma, Mullerian anomalies, pelvic adhesions, large ovarian neoplasm's which distort uterine shape/ position, congenital weakness at the junction of cervix and uterine corpus, external cephalic version procedures, sudden maternal movements as during automobile accidents or rarely in normal activity, abnormal pelvic architecture, hydramnios, multiple gestations, hyperactive fetus, interstitial pregnancy.<sup>8</sup> Although many of these associations are to be seen in pregnancy, torsion is rare. This observation suggests that additional factors must also in some way contribute to the same. Some authors have suggested that pelvic pathology could lead to uterine torsion but there are plenty of reports to the contrary.<sup>2,3,4,7</sup> Jensen<sup>7</sup> described several clinical findings characteristic of uterine torsion (Table 1). On surgical exploration uterine rotation about the vertical axis is observed in association with marked venous engorgement and edema of the parametrial tissues. On abdominal examination the round ligament is palpably stretched across the maternal abdomen, On pelvic examination

**Table1. Signs and symptoms of uterine torsion according to degree of uterine rotation**

uterin torsion degrees (n=212)	intestinal	urinary	pain	Signs and symptoms*			
				shock (haemorrhage)	labour dystocia	other**	none
<=90 (n=66)	10	5	43	4 (6)	7	13	9
>90-180 (n=122)	17	-	91	22 (13)	19	19	14
<180-360 (n=14)	7	10	14	6 (1)	3	3	0
>360 (n=6)	0	0	6	6 (1)	6	6	0
Unknown (n=4)	0	0	4	2 (0)	0	0	0

\* Some cases include more than one sign or symptoms

\*\* Hypertonic uterus, PROM, pre-eclampsia, uterine rupture etc

the uterine artery is perceived as pulsating anteriorly, on per speculum examination the vagina and/or the cervical canal is distorted. Uterine torsion is a rare obstetric complication, nonetheless because of its associated risks, torsion should be included in the differential diagnosis when severe but non-specific abdominal pain occurs during pregnancy. In our case however the torsion was diagnosed following delivery of the baby and there was presence of a pelvic pathology a cervical fibroid that could have contributed to uterine torsion. Amazingly the bladder was adherent to the lower aspect of the posterior surface of the uterus (torsion of 180 degrees) this would suggest that the torsion could have taken place in the previous pregnancy either just after cesarean or had been there to begin with and gone unrecognized. In several reported cases of torsion as in our case, the degree of rotation was so severe that detorsion<sup>2, 3, 5, 6</sup> was not possible and the hysterotomy incision made at the time of cesarean delivery could only be performed on the posterior uterine wall. Some surgeons described these posterior incisions as inadvertent, where as others deliberately performed them when efforts to rotate the uterus to its normal position proved unsuccessful. Too few reports are available to permit accurate assessment of the long term sequelae of delivery through posterior hysterotomy incision. It seems reasonable to first attempt to rotate the uterus into normal position. If detorsion is impossible the posterior approach is used with a transverse incision. The risk of uterine rupture with a prior posterior lower segment incision compared to anterior incision remains unknown. In the absence

of evidence, we recommended a cesarean for our patient for further deliveries. Probably a cesarean is safer theoretically also since it avoids the chance of uterine rupture.

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