IBOM MEDICAL JOURNAL
Vol.18 No.2 | April - June, 2025 | Pages 385 - 387
www.ibommedicaljournal.org

A rare case of torsion of a gravid uterus with delivery through inadvertent posterior lower segment uterine incision with favorable outcome: A case report

Lawal Abdulfattah M, Oyetunji Olajide L, Ibrahim Habib M,

Obstetrics and Gynaecology Department, Federal Teaching Hospital, Katsina, Nigeria.

Abstract

We report a case of 32yr old primigravida with persistent breech presentation at term that had an elective lower segment caesarean section at 38 weeks 3 days gestation. Having gained access into the peritoneal cavity, the utero-vesical peritoneal reflection could not be accessed in an apparently grossly normal gravid uterus, coupled with indwelling catheter draining clear urine. Kerr's lower segment incision was made after correcting dextrorotation and the baby and subsequently the placenta were delivered. The incision was repaired in double layers. Exploration revealed a uterus that rotated 180 degrees, with the left fallopian tube and ovaries occupying right iliac fossa and vice versa. It was then de-rotated, thereby alerting our attention to the accidental posterior lower segment incision. The patient's immediate postoperative conditions remained satisfactory and was discharged on the 5th postoperative day having made smooth recovery.

Key words: Posterior lower segment uterine incision, uterine torsion

Introduction

Caesarean section refers to a surgical procedure that involves deliberate incision on the lower uterine segment in order to deliver a fetus that has attained age of viability.[1,2] About One-quarter of lower segment Caesarean sections are performed electively, with the most common indications being repeat caesarean section and mal-presentation, with anaemia as the most common complication (6.4-57.1%).[1,2] Women are now four times more likely to have Caesarean Section (CS) than 30 years ago.[2] Despite its increasing safety, Caesarean Section cannot replace vaginal delivery due to its associated increased maternal and neonatal morbidities as well as cost.[2]

Rotation of gravid uterus is a common finding in third trimester and does not go beyond 45 degrees.[3,4] The rotation of uterus along its axis greater than 45 degrees is termed uterine torsion (UT) and is pathological. It can range from 60 to 720 degrees.[3] The gravid uterus typically undergoes dextrorotation due to increase in uterine size as well as the presence of the recto-sigmoid colon on the left.[3] The exact aetiology of uterine torsion is unknown but uterine leiomyoma, presence of pelvic adhesions and congenital uterine anomalies increases the risk.[3,5] External Cephalic Version is also associated with uterine torsion as a complication. Uterine torsion may be asymptomatic or may present with fetal abnormal lie or abnormal labour such as obstruction or failure to progress.[5,6-8] Uterine torsion appear to be unrelated to patient's parity, gestational or maternal age.[8] Transverse lie appears to be the most frequent abnormal presentation associated with Uterine torsion (72%).[8] Significant lower abdominal pain may be a feature or as a manifestation of its associated complication of pelvic ischaemia and abruptio placentae.[4,7-9] Recent review showed that uterine torsion occurs within a normal pelvis with no any associated pelvic pathology.[8] The diagnosis of uterine torsion is incidental during Caesarean delivery.[7-9] When suspected, whirl (whirl pool) sign on Magnetic resonance imaging (MRI) or CT scan is highly suggestive. Other radiologic features of UT include features of infarction in a mass and presence

Corresponding Author:

Dr. Abdulfattah Mohammed LAWAL
Obstetrics and Gynaecology Department, Federal Teaching Hospital Katsina, Katsina state, Nigeria.

lawalabdulfattah@gmail.com

DOI: 10.61386/imj.v18i2.680

of gas within the uterine cavity. However there is poor correlation between clinical symptoms and classical radiological features.[8] Management involves de-torsion of the uterus and subsequent anterior lower segment incision to deliver the fetus.[5,8,9] Difficulty in de-torsion may require delivery via classical hysterotomy or deliberate posterior lower segment incision.[8,9] Inaccessible anterior lower uterine segment due to adhesions or presence of a tumor may require posterior lower segment incision after exteriorizing the uterus and inverting it over the patient's thighs.[9] Exteriorization of the uterus may be made easier via transverse incision with amniotomy to drain the liquor.[8,9]

We present a case of inadvertent posterior lower segment Caesarean section with a favorable outcome in a patient with persistent breech presentation and retrospective diagnosis of uterine torsion.

Case Report

This is a case involving a 32 year old booked primigravida with persistent breech at term that had elective caesarean section after failed external cephalic versions. She booked for antenatal care at 22 weeks of gestation and had six (6) uneventful follow up visits. Her routine investigations were normal but had breech presentation at 32 weeks which was confirmed via Ultrasound Scan (USS). The findings were discussed with her. A diagnosis of persistent breech presentation was made at 37 weeks. She was counseled for and had two attempts at External cephalic versions (ECV) at 37 weeks two days and at 37 weeks 5 days, which were not successful. She was therefore counseled for elective Caesarean section which she consented. Her pre-operative investigations were normal.

At surgery, having gained access into the peritoneal cavity, there was obvious dextrorotation, which was corrected. The utero-vesical peritoneum and the bladder could not be accessed even though the urethral catheter was confirmed to be in-situ and draining clear urine. A lower segment incision was made with the baby delivered via breech extraction. The uterine incision was repaired in double layers with Polyglactin 910 (vicryl) 2 suture on an exteriorized uterus. Abdominal exploration was done to confirm the position of the bladder when the uterus was confirmed to have rotated 180 degrees in an anti-clock wise direction, with our uterine incision being on posterior lower uterine segment (figure 2).

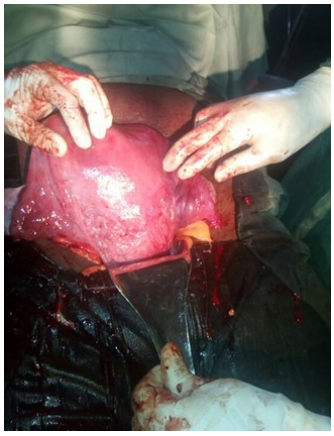

Figure 1: Anterior Uterine wall of the uterus with intact utero-vesical peritoneum after de-torsion

Figure 2: Repaired posterior lower segment incision after de-torsion

The uterus was then de-torted (figure 1) and the abdomen repaired in layers. Further peritoneal exploration showed no any gross skeletal or soft tissue abnormalities and no associated uterine leiomyoma or features of pelvic congestion or ischaemia. Patient's immediate and subsequent post-operative conditions remained satisfactory. She was discharged on the 5th day.

Discussion

This was a case of 180 degrees uterine torsion associated with persistent breech presentation that resulted in unintended posterior lower segment uterine incision at term. The diagnosis of the torsion was retrospective following exploration after delivery of the baby. The presence of dextro-rotation coupled with inaccessible utero-vesical peritoneal reflection were the features of uterine torsion in this patient. If the diagnosis was entertained prior to the uterine incision, reduction of the torsion with subsequent anterior lower segment incision would have been the best approach.[4,7,8,9] The next option would be posterior classical incision when the

torsion could not be corrected.[4,8,9] This patient had lower segment incision which turns out to be on posterior lower segment as the diagnosis of 180 degrees torsion was retrospective, following peritoneal exploration after repair of the uterine incision. The repair was easier and without observed significant haemorrhage. In a review that involved five cases of posterior lower segment incisions (two deliberate and three inadvertent), the procedures were reported to be easier and associated with less immediate complications, were associated with good outcome and with less risk of uterine rupture in subsequent pregnancy compared to classical incision.[9] There is also less risk of injury to the bladder or ureters but with increased risk of post-operative adhesions.[4,7-9]

Patient was asymptomatic and peritoneal exploration revealed no abnormal findings, as was reported in most cases of torsion of gravid uteri at term.[8,9] External cephalic versions failed due likely to the existing uterine torsion, as there was no movement on "forward roll" despite the breech being unengaged and with effective tocolysis and analgesia. There was no undue abdominal pain or features of uterine irritability after the procedures and fetal heart tones remained normal prior and after the procedures, thus ruling out ECVs as the cause of UT in this patient.[7]

This was a case of spontaneous uterine torsion with persistent breech presentation that resulted to inadvertent posterior lower segment uterine incision with a favorable outcome.

Conclusion and Recommendation

Posterior lower segment caesarean section is associated with less blood loss and uneventful recovery. When faced with obvious dextrorotation during Caesarean section, careful exploration is recommended prior to lower segment incision in order to rule out uterine torsion. Uterine torsion should be suspected when there is no obvious utero-vesical peritoneal reflection at the lower uterine segment of a term gravid uterus in the presence of dextrorotation.

Conflict of interest

We declare no conflict of interest

References

1. Osayande I, Ogunyemi O, Gwacham-Anisiobi U, Olaniran A, Yaya S and Banke-Thomas A. Prevalence, Indications and Complications of caesarean Section in Health facilities across Nigeria: A systematic review and Meta-analysis. Reprod Health.2023 jan 2;20:81
2. Syeda Batool Mazhar A, Sharafat S. Spotlight on Lower Segment caesarean Techniques. Clin Surg.2017;2:1543
3. Christian C.Makwe, Aloy O Ugwu, Gabriel N Osuji, Chinedu Anumni, Oluwayemisi E. Ekor and Gabriel K. Asiyanbi. Posterior Classical Caesarean section in a myomatous gravid uterus at term: a case report. Journal of surgical case Reports 2021;9:1-3
4. Wilson D, Mahalingham A, Ross S. Third trimester Uterine torsion: Case report. J Obstet gynaecol Can 2006;28:531-5
5. Hooman H, Moukhah S, Alizadeh M. Asymptomatic Torsion of a Gravid Uterus. Taiwan J Obstet Gynaecol 2013;52:599-601
6. Salani R, Theiler RN, Lindsay M. Uterine Torsion and fetal bradycardia associated with external cephalic version. Obstet gynaecol 2006;108:820-822
7. Katie Boehm, Mariam Gheissari, David Crownover, Amanda Fraguli. Do not get your Uterus twisted. A case report of a 150-Degree Torsion of Term Gravid Uterus and a review of the literature. Cureus. 2024 Jun 11;16(6):e62194
8. Sukanya singh Jr, Surekha Tayade, Drashti Patel. Torsion in Uterus: An Obstetrical and Gynaecological emergency. Cureus 2024 Feb 24:16(2): e 54839
9. Kime KM, Bazzett-Matabele L, Nassali MN, Hofmeyr GJ. Posterior lower uterine segment Caesarean hysterotomy, an innovative surgical technique to avoid classical Hysterotomy: case report and discussion. SAGE Open Med Case Rep.2024 Oct 12:1-4