# EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

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Case Report
ISSN 2394-3211
EJPMR

# AXIAL ROTATION OF GRAVID UTERUS IN UTERUS DIDELPHYS BICOLLIS - A RARE CASE REPORT

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Article Received on 09/05/2016

Article Revised on 30/05/2016

Article Accepted on 20/06/2016

### **ABSTRACT**

**Introduction:** Rotation of the gravid uterus is normal in third trimester of pregnancy. However, a pathologic rotation of the uterus beyond 45 degrees is rare and may lead to many obstetric complications requiringemergency surgical intervention. Here we report a rare case of torsion of preterm gravid uterus which might be a cause of intrauterine fetal death due to uterine devascularisation.

**KEYWORDS:** Mullerian duct anomaly, uterus didelphys, torsion of uterus.

## INTRODUCTION

Uterine torsion is defined as a rotation of the uterus of more than 45 degrees on its long axis. It is an unusual complication of pregnancy. Usually it occurs at the junction of uterus and cervix. Axial rotation of less than 45 degrees is common in late pregnancy.It may range from 45 degrees to 720 degrees.<sup>[1,3]</sup> Dextrorotation occurs in two thirds of all the cases and levorotation is found in the other one third. Uterine torsion may be sporadic or associated with other conditions like uterine myomas, uterine anomalies, and malpresentations of fetus or secondary to trauma. Salani et al reported a case of uterine torsion after external cephalic version. [2] the non-specific clinical course makes the preoperative diagnosis difficult and needs emergency critical management. This is a rare case of preterm uterine axial rotation in uterus didelphys bicollis.

# CASE REPORT

Mrs. X, 26 yrs old primigravida with 28 weeks of gestation with intrauterine fetal death was referred from a private hospital in view of failed induction of labour. On admission, she was pale. Her pulse was 126/min, BP- 90/60 mm of Hg. On per abdomen examination uterus was corresponding to 28 weeks of gestation, tense, tender and fetal heart sounds were absent. On per speculum examination, vertical septum was found and 2 separate cervixes were seen with minimal amount of bleeding from left cervix. On per

vaginal examination, two separate cervixes were felt. An emergency bed side scan was done which showed a single dead intrauterine fetus with 26 weeks  $\pm$  4 days without any signs of abruption. Uterine anomaly was unable to make out.



Fig 1: Intraoperative picture showing signs of devascularisation with congested left horn of uterus, left tube and ovary.

Laboratory investigations were done. Her Hb% was 7g/dl, TLC – 18,420/cumm. Other routine investigations were within normal limits. She was posted for emergency laparotomy in view of deteriorating general condition suspecting either rupture or torsion of uterus. 3 pints of packed cells

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were issued and patient was shifted to emergency operation theatre. Intra operatively minimal amount of free fluid was present. Left horn of uterus was bluish in color and a sign of devascularisation was present. Normal anatomy was altered. Round ligaments could not be made out. There was a difficulty in approaching lower uterine segment. Uterovesical fold of peritoneum could not be made out. Bladder was edematous. On deep palpitation there was axial rotation of uterus to about 180°. Detorsion of uterus was done. Lower uterine segment was opened and a dead fetus of about 1.2 kgs was delivered along with placenta. Left tube and ovary are gangrenous so we have proceeded with left sided subtotal hysterectomy with left salpingooophorectomy. Right horn of uterus was normal with normal right tube and ovary which are retained. The specimen was sent to HPE [Fig 1]. Intraoperatively her pulse was 136/min and BP – 90/60 mm of Hg. She was shifted to critical care unit and blood transfusions were done. Her post-operative period was uneventful and had a smooth and safe recovery. Suture removal was done on 8th post-op day. Contraception was advised and patient was discharged.

### DISCUSSION

Mullerian ducts are paired embryonic structures that undergo fusion and resorption in utero to give rise to uterus, fallopian tubes, cervix and upper two thirds of vagina. Any interruption in this normal development will lead to mullerian duct anomalies. Variations in the site of fusion can result in an arcuate or bicornuate uterus. Complete failure of fusion can result in a didelphic uterus. Uterine anomalies will lead to many obstetric complications like infertility, preterm labour, IUGR, recurrent abortions, adherent placenta, fetal mal presentations and rarely torsion of uterus.

Uterine torsion is a rare complication of pregnancy. Patients may present with varied and vague clinical presentation. It is very difficult to diagnose clinically without high index of suspicion. Clinical suspicious should be done in cases with varied maternal symptoms, abnormal fetal heart rate, abruption, intra uterine fetal death and failed induction of labour with uterine anomaly.

Pre-operative diagnosis is made on MRI. Pre-operative diagnosis is difficult and it is usually diagnosed intraoperatively. Intraoperatively detorsion should be done and anterior uterine incision should be given. If detorsion is not possible posterior lower segment cesarean section followed by detorsion can be done. If diagnosis is missed intraoperatively, incision over the lateral uterine wall will lead to torrential hemorrhage increasing the risk of maternal morbidity and mortality. If uterine blood supply is not compromised, some authors suggest detorsion of uterus followed by complication of uterosacrals<sup>[4]</sup> and round ligaments to prevent retorsion. [3] Hysterectomy should be done in case of severe uterine ischemia. Maternal mortality is

less compared to perinatal mortality when timely intervention is done. Guieet al<sup>[5]</sup> also reported that prompt surgical intervention will reduce possible fetal mortality and maternal mortality associated with this condition.

In our case she had intrauterine fetal death and was referred to our hospital in view of failed induction of labour. Inspite of good uterine contractions, cervical changes were absent<sup>[6]</sup>. She was shifted to emergency laparotomy suspecting rupture of uterus or torsion as her vitals are deteriorating.

### CONCLUSION

Uterine torsion is a very rare complication present in the pregnancy. Apart from other surgical causes, every obstetrician should have this complication in mind when a pregnant woman comes with acute abdomen especially in the presence of a uterine anomaly. Acute uterine torsion is associated with placental abruption, maternal shock and fetal death<sup>[7]</sup>. In the present case report, intra uterine fetal death and maternal shock occurred secondary to arrest of uterine blood flow due to torsion. Timely intervention saved the life of mother.

## **ACKNOWLEDGEMENTS**

We sincerely would like to acknowledge Dr. Chb. Jhonsi, Dr. P. Rabbani, and other colleagues for their support.

**Funding:** No funding sources. **Conflict of interest:** None declared.

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