

CASE REPORT

Levotorsion of a Unicornuate Gravid Uterus Leading to Failed Induction

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Introduction

The uterus in its normal state has little motility and is firmly held in place by the broad ligaments and the uterosacral ligaments. These widely distributed supports resist any tendency to torsion. The point of torsion of the uterus is fixed, occurring as a rule at the level of the uterine isthmus, rarely higher at the level of the insertion of the fallopian tubes. Until 1992, only 212 cases had been reported in literature [1]. Torsion cause venous obliteration, oedematous infiltration, distension of the uterus by blood or pus, and widespread hemorrhagic infiltration in pelvic and sub-peritoneal tissues, occlusion of the arteries may cause necrosis of tissue. The uterine torsion usually ranges from 45 to 180° but rarely extent of torsion varies between 200° and 360°, although up to 720° twists also noted [1].

Case Report

A 21 years old gravida two, para one, living one, was admitted at 24 weeks of gestation with bleeding per vaginum

and loss of fetal movements for 2 days. On examination, her pulse was 116 beats/min and blood pressure was 130/80 mmHg, marked pallor present, On abdominal examination, the fundal height was 28 cm, breech presentation with absent fetal heart and mild (2/15''/10') uterine contractions were present. On per speculum examination, no active bleeding was seen. On vaginal examination, the cervix was posterior and internal os was closed (Fig. 1).

Investigations

Her Hb was 5.9 gms%. Total counts were 20.6×10^3 mmHg. Rest all her blood and urine investigations were within normal limits. Ultrasound examination showed a single intrauterine fetus of 24 weeks maturity, absent cardiac activity, placenta posterior grade I, and liquor mildly rose.

Management

After admission, she was infused two units of PCV and induction of labor done with per vaginal tablet misoprostol (100 µgms) every six hourly for five times and mechanical dilation with extra-amniotic Foley's catheterization under antibiotic cover. After 36 h of instillation there were mild uterine contractions and no dilation, then cerviprime gel was introduced for twice 12 h. After 62 h of first induction, she developed fever of 99°F, her pulse was 120 beats/min, her blood pressure was 110/80 mmHg, she became increasingly pale, her fundal height raise to 34 cms (+6), uterine tone was

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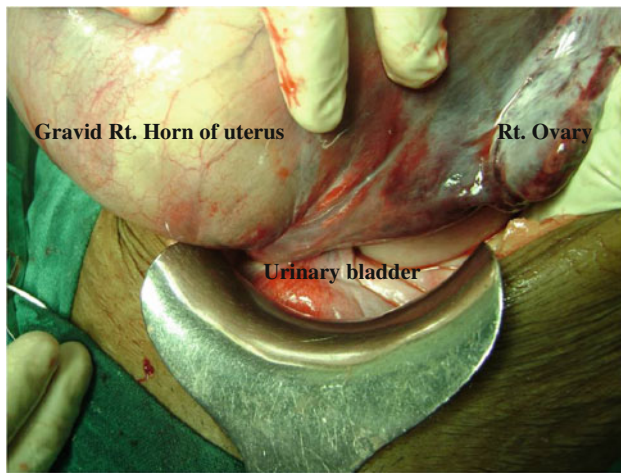


Fig. 1 Showing Rt. Horn of gravid uterus with Rt tube and ovary, and twist at isthmus on laparotomy

raised and presenting part not made out. It was decided to deliver the baby by hysterectomy for failed induction.

On opening the abdomen by a Right paramedian incision, pus was present in pelvic cavity, the uterus was found to be levorotated by 180° in the anticlockwise direction, uterus was bluish grey in color and flabby. The right fallopian tube and round ligament were stretched across the uterus to the left side. The uterus was delivered outside and corrected back to a normal position. Left cornual structure not seen. There was a rudimentary non-gravid left horn seen to which left round ligament was attached. The loose uterovesical fold of peritoneum was incised and the urinary bladder pushed down by finger dissection. The lower uterine segment was not well formed. A 'j' shaped incision was made on the lower uterine segment and 500 gm female fetus was delivered. The placenta was anterior low lying delivered by control cord traction. 150 gm retro placental clots were removed; The uterus and abdominal wall were sutured in layers. Abdominal drain kept. Two units PCV, 2 units PC and 4 units of FFP were given intra-operatively. She developed pulmonary oedema intraop, and shifted to mechanical ventilator for 2 h under frusemide cover. The patient recovered well and was discharged on the 13th postoperative day with USG showing bulky uterus with empty cavity and no pelvic collection.

Discussion

In the present case, it was surprising that despite the torsion of the uterus along an angle of 180° the patient had nonspecific symptoms (cervical dystocia, painful uterine contractions, dynamic hypotonia [2].) and sometimes asymptomatic (11%) [3]. The onset of the torsion occurred insidiously during the course of pregnancy. We were fortunate to have a safe outcome.

A review of literature shows that the clockwise rotation to the right is common in pregnancy. Torsion through a sufficient degree which can arrest uterine circulation and produce an acute abdominal crisis is however rare. Most often the cause is unknown, the presence of intra-abdominal adhesions, ovarian tumors, fetal malpresentation, uterine distortion and asymmetry caused by uterine myomas or uterine developmental anomalies [1], repeated spiral movements of reaping, peristaltic movements, mullerian abnormalities, changes related to pregnancy, external cephalic version had been claimed. Due to extreme torsion, incision is usually made inadvertently on the posterior wall of the uterus. In this case we could able to correct the torsion and made incision on anterior segment. Extreme uterine torsion can be confused with an abdominal pregnancy. Localization of the placenta in a pregnancy complicated by uterine didelphys may improve the ability to diagnose hemi uterus torsion [4]. Nicholson et al. have suggested the accuracy of diagnosing this condition ante partum by an 'X-sign' on the magnetic resonance imaging (MRI)[5]. Vagina is normally seen on the MRI as an 'H-shaped' structure. But with torsion of the uterus and upper vagina, it appears as an 'X-shaped' structure. Torsion presenting in labor usually diagnosed as cervical dystocia in spite of good uterine contractions and failure of induction, and rarely diagnosed before operative measures. It is necessary to have in mind the possibility of uterine torsion in all cases of abdominal pain during pregnancy and dystocia.

Uterine torsion is an infrequently reported and potentially dangerous complication of pregnancy with adverse maternal and neonatal consequences. Quickness of surgical treatment is fundamental for the reduction of fetal mortality which is very frequent in a large number of cases, while maternal mortality is not so frequent but possible. A diligent anamnesis and ultra-sonographic examination are surely useful to single out the rare cases of uterine torsion in pregnancy.

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