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UTERINE TORSION IN PREGNANCY: CASE PRESENTATION AND REVIEW OF LITERATURE
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ABSTRACT

PK was a 30 year old primi-gravida who underwent a scheduled caesarean section for transverse fetal lie at term. A 180^0 leavo-rotation of the uterus was noted after delivering the baby through a posterior lower uterine segment incision. A live baby was born. Derotation of the uterus was done.

Torsion of the pregnant uterus is defined as rotation more than 45 degrees around the long axis of the uterus. It is observed in any reproductive age, parity, and stage of pregnancy. Associated conditions include; abnormal fetal presentation, myoma uteri, uterine malformations, and pelvic adhesions. Treatment near term or during labor is cesarean section.

This paper highlights the incidence, diagnostic challenges, associated risks, and management of uterine torsion

CASE

P.K. was a 30 year old primigravida who presented for her first antenatal visit at 6 weeks gestation. Her past medical history was not significant. She was not married, a banker who did not drink alcohol nor use tobacco. There was no contributory family history. Her antenatal follow up was uneventful, though on abdominal palpation she was noted to have a transverse fetal lie at her clinic visit at 36 weeks gestation.

A preceding ultrasound scan revealed "normal fetus at 36weeks in cephalic presentation, placenta fundo-posterior, adequate liquor and normal Doppler flows"

Figure 1: *Films of an obstetric ultrasound at 36 weeks gestation*

Abdominal examinations still established a persistent transverse fetal lie at 38 weeks gestation. She was counseled and consented for elective caesarean section.

She underwent a scheduled abdominal surgery under general anesthesia. On opening the abdomen a slightly engorged fallopian tube and ovary were noted anterior to the uterus. The uterus was oblique with a fetal head at the lower uterine segment. The lower uterine segment had obvious engorged vessels. A curvilinear lower uterine segment incision was done and a female infant was delivered with an APGAR score of 9/5, 10/10. A 10cm diameter fibroid was noted on the opposite uterine wall. The uterine incision was stitched and hemostasis achieved. On further inspection the uterus was noted to have a 180^0 rotation to the right. A de-rotation was done and the anterior lower uterine segment was found to be intact and it was discovered that the baby had been delivered via a posterior lower uterine segment incision.

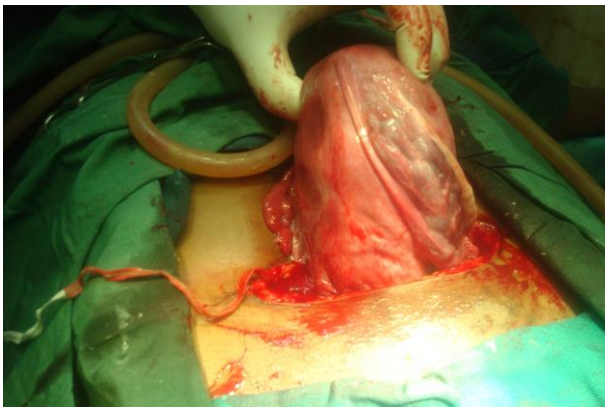

Figure 2: *Picture of the sutured posterior lower uterine segment*

DISCUSSION

Torsion of the pregnant uterus is defined as rotation more than 45 degrees around the long axis of the uterus (1, 2). The torsion commonly occurs at the junction of uterine body and cervix. Torsion from 60 degrees to 720 degrees has been described (3, 4). Physiological dextro-rotation to the right occurs commonly in pregnancy due to the recto-sigmoid colon, but a rotation is called pathological if it exceeds 45 as it has the potential of obstructing uterine circulation resulting in acute abdomen and possibility of fetal demise.

Literature is very scanty on the occurrence of uterine torsion. The earliest report of this condition was made by an Italian veterinarian, Columbi in 1662. 200 yea**rs** later, in 1863, Virchow reported the first case in a human observed at postmortem examination. It was first described in a living woman in 1876 by Labbe (5). Pathologic torsion of the uterus is a frequent disorder in veterinary obstetrics but is a rare complication in pregnant women. It has been observed in all age groups of the reproductive period, all parity groups and at all stages of pregnancy (3).

It has commonly been associated with abnormal fetal presentation, myoma uteri, uterine malformations, forceful blunt abdominal trauma, external cephalic version, presence of abdomino-pelvic adhesion, and women with pendulous abdomen with a lax musculature (6, 7).

Antenatal diagnosis is difficult and not definite since the presentations are not specific and in 11% are asymptomatic. It has been discovered in pregnant patients presenting with birth obstruction, vaginal bleeding, abdominal pain, acute abdomen, shock, urinary and intestinal symptoms (3, 6). A phenomenon of *'placenta migrans'* has been defined on serial ultrasound where there is changing placental localization on ultrasound from the left to the right side (8).

Uterine torsion has been associated with increased risks of uterine rupture, pulmonary embolism, fetal bradycardia, and high fetal mortality rates. However no maternal mortality has been reported so far (9). Interventions in cases of uterine torsion should be urgent due to the risk of impaired utero-placental perfusion. De-torsion is the returning of the uterus back to normal position and has been used particularly in veterinary medicine to increase fetal survival (10). Emergency laparotomy and de-torsion of the uterus in earlier months of pregnancy is advisable. Normal vaginal delivery is not achievable in extreme cases of uterine torsion at term. Cesarean section is therefore carried out near term or during labor. There have been attempts for adjunct surgery to eliminate the possible etiologic factors, like caesarean myomectomy in case of uterine fibroids. This should be carried out on only carefully selected women as it can be hazardous because of uncontrollable haemorrhage (11).

Caesarean section as initially described and routinely performed involves the delivery of the baby through an incision in the anterior abdominal wall. Deliberate lower transverse posterior hysterotomy has been described to deliver the baby in cases of uterine torsion (12, 13). This has however been associated with the risk of damage to the uterine vessels and the ureters, besides weaker scar healing and possibilities of uterine rupture in subsequent pregnancies.

It is therefore important to emphasize the need to define anatomical marks before incising the uterus in Caesarean section procedures. Checking for presence of uterine torsion in Caesarean section procedures before incising the uterus is crucial to avoid serious vascular injury. An attempt to correct the position of the uterus should be made before an incision in the posterior part of the uterus is made.

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