

Uterine torsion in pregnancy

J. Sharma *

B. Manandhar *

D. Dangal **

Abstract

Torsion of the gravid uterus is defined as rotation of more than 45 degrees around the long axis of the uterus. Torsion to the extent of arresting uterine circulation and causing acute abdomen is, however, rare. Torsion ranging from 60 degrees to 720 degrees has been reported. It is difficult to explain why torsion occurs but various abnormalities have been associated with this condition such as uterine fibromyoma, ovarian tumours, foetal malformations and abnormal foetal presentations. The incidence of uterine torsion in pregnancy is very rare as upto 1992 only 212 cases have been reported in the world literature. Such cases can be mistaken for accidental haemorrhage, rupture uterus, or ectopic pregnancy depending upon the stage of gestation at which it presents. We present a case of uterine torsion at 32-week gestation which we mistook for rupture uterus. The diagnosis could be established during laparotomy.

Keywords: Pregnancy; Torsion; Classical caesarean section; Rupture uterus.

Introduction

Torsion of the uterus is defined as rotation of more than 45 degrees around the long axis of the uterus.¹ It is an extremely rare condition during pregnancy. Till 1992, only 212 cases had been reported in the world literature.² Another case of uterine torsion was reported by M. Jain and her colleagues in 1995.³ The aetiology of uterine torsion is unknown, but it is seen to be associated with uterine anomalies (congenital or acquired) causing asymmetry, ovarian tumours, uterine myoma and pelvic adhesions exerting traction on the uterus. It can occur even in a loosely suspended uterus.³ Foetal malpresentation is another predisposing factor. We present a case of uterine torsion which, in view of her presenting features, we had wrongly diagnosed her as a case of rupture uterus. Our aim of presenting this interesting case is that although uterine torsion is of a rare occurrence in pregnancy, it should be kept in mind as one of the differential diagnosis of acute abdomen in pregnancy, especially in the last trimester, when it is more common.

Case report

On 6th October 1997, Mrs. Rekha 26/f G5 (P1+3) at 31 weeks of pregnancy reported to the gynae OPD of TUTH with the complaint of dull aching pain in the lower abdomen off and on with decreasing intervals. Her antenatal done in a private clinic, was uneventful.

Obstetrical history G5 (P1+3) 1st and 2nd pregnancies terminated in spontaneous abortion at 8-10 weeks of gestation.

3rd pregnancy – caesarean section was carried out for foetal distress. A live baby weighing 3 kgs was delivered.

4th pregnancy – Induced abortion at 8 weeks of gestation.

Past history – not significant

On examination, the patient was stable. Her blood pressure was 110/70 mm hg. Pulse rate - 80/mt regular, normal volume. Respiratory rate - 10 12/mt. Temperature - 98oF There was no pallor, Jaundice or

oedema and her chest and cardiovascular systems were normal. The uterus was relaxed and corresponding to 30-32 weeks of gestation. Presentation was breech. Foetal heart rate was 144-146/mt, regular. There was no scar tenderness. Vaginal examination revealed, a tubular cervix and a high up presenting part. There was no leaking or show. We planned to admit her for observation and bed rest. We started tocolytics (Isoxsuprine) at a dose of 10 mg orally 6 hourly. She was diagnosed as a case of pregnancy with threatened preterm contractions.

Urgent ultrasound done on the same day showed a single live foetus with normal cardiac activity. The placenta was situated posteriorly in the upper uterine segment and, the liquor was adequate.

On 14th October 1997, after the 8th day of admission, at 11 am, the patient complained of severe pain in the lower abdomen. On examination there was pallor⁺⁺. The pulse was of low volume - 130/min, Respiratory rate 20/min. There was tenderness all over the abdomen. The uterine contour could not be made out and foetal heart was not audible.

Diagnosis

In view of the signs and symptoms and the past history of casaerian section Rupture uterus was suspected.

The patient was immediately resuscitated and shifted to the operation theatre for urgent laparotomy. In the mean time grouped and cross matched blood was arranged. The findings during laparotomy were as follows:

1. The uterus was tense and over distended.
2. There were dilated vessels all over its surface.
3. Fallopian tubes of either sides were lying in front of and over the lower part of the uterus.
4. The lower uterine segment was not visible as it was covered by the fallopian tubes.

There was no rupture site.

The findings were totally different from what we had suspected.

Procedure

We gave an incision over the upper uterine segment (classical incision) which was followed by a gush of blood stained liquor. A dead male baby was delivered by breech. The placenta was delivered by controlled cord traction and it was found to be normal. There was about 400 ml of RETROPLACENTAL clot. After the delivery of the baby and placenta, the uterus was examined. There was a 360 degree torsion at its lower uterine segment. Detwisting was done and the incision made was closed in two layers with No. 2 chromic catgut. At the request of the patient bilateral tubal ligation was done. The abdomen was cleared of blood clots, liquor and closed in the usual manner. The patient made smooth post operative recovery and was discharged on the 9th post operative day.

Discussion

Uterine torsion in pregnancy is a rare condition. It is defined as rotation of more than 45 degrees around the long axis of the uterus. The twist commonly occurs in between the corpus and the uterine cervix.⁴ Physiological rotation of the uterus to the right also known as dextrorotation, is common pregnancy. This is due to the presence of rectosigmoid on the left side of the maternal pelvis. However, dextrorotation to the extent of arresting uterine circulation and causing acute symptoms is rare. Although dextrorotation is twice as common as levorotation⁵, a case of levorotation resulting in foetal heart rate deceleration for which casearean section had to be done has been reported.⁶ Pathological torsion has no relation with maternal age, parity or duration of pregnancy. It can occur during labour or even in the puerperal period.⁵

It can be of gradual or acute onset and even recur in subsequent pregnancy. The cause of pathological torsion is unknown, but various abnormalities have been associated with this condition. The common ones are - fibromyoma of the uterus, foetal malpresentation (as seen in the present case) ovarian tumours, pelvic adhesions, loose abdominal wall, spinal and pelvic deformities, placenta praevia and loosely suspended uterus.³ In 1/5th of the patients with uterine torsion in pregnancy, no associated abnormalities have been found.⁵ Uterine torsion has even been reported in a pregnant mare.⁷

Although uterine torsion in pregnancy is usually symptomatic⁸, Jensen reports an incidence of asymptomatic torsion in pregnancy as 11%.² Torsion if pronounced, is associated with acute abdomen. Depending upon the period of gestation at which it presents, it can be mistaken for ectopic pregnancy in the early trimester, abruptio placenta or rupture uterus in the latter half of pregnancy - in which it is more common. The present case was mistaken for rupture uterus. The patient was in the latter half of pregnancy, with a previous history of caesarian section. We planned laparotomy, but the laparotomy findings were totally different from what we had expected. We gave a classical incision as there was no space at the lower uterine segment, (because of the twist). It was only after delivering the baby that we realised that it was a case of uterine torsion of 360 degrees.

The acute onset of shock which had occurred prior to laparotomy could have been due to the sudden placental separation or due to the combined effect of torsion and abruptio placenta. Uterine torsion can result in abruptio placentae.

The diagnosis of uterine torsion in pregnancy is usually made during laparotomy, because, as already mentioned above, it is a rare condition and is usually not suspected. Retrospectively the clinical features are:

- 1) Pulsation of uterine artery in the anterior fornix.
- 2) Narrow cervical canal.
- 3) Twisted vagina.
- 4) Presenting part high up.
- 5) Round ligament felt crossing the anterior surface of the uterus.

Ultrasonogram can be of help in diagnosing uterine torsion especially if it shows a change in the site of placental localisation i.e. from left to right or vice versa in the repeat scan.⁹

Lower abdominal pain is the most characteristic symptom. The other common symptoms are nausea, vomiting, constipation, diarrhoea, persistently hard and tender uterus, shock and urinary symptoms like dysuria, frequency and oliguria.⁵ Complications following torsion are obstructed labour, abruptio placentae, rupture uterus, pulmonary embolism, shock and foetal and/or maternal mortality.¹⁰ A 13% maternal mortality and 30% foetal mortality have been reported.⁵ The treatment of this condition is laparotomy and derotation of the uterus. It is important to reconstruct the normal anatomy before making the uterine incision to avoid damage to the uterine vessels. Whenever possible, any fibromyomas, ovarian tumour or adhesions should be removed.¹

Although uterine torsion pregnancy is a rare condition, it should be kept in mind as one of the differential diagnosis of acute abdomen in pregnancy especially in the last trimester when it is more common. All of us should be aware of this condition and the complications if not treated in time.

Acknowledgement

We are grateful to the department Head, Prof. K. Giri, and to my colleagues and staff in allowing us to write this case report.

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