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A CASE REPORT A RUPTURED CORNUAL PREGNANCY AT 16 WEEKS

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Abstract : Ectopic pregnancies are a diagnostic challenge and can cause significant morbidity and mortality if not detected early. Cornual pregnancies account for 2-4 of all ectopic pregnancies, however the mortality rate is 6-7 times higher than that of other ectopics in general. They are atypical in presentation, manifest later and might be more dangerous. We present a case report of a ruptured cornual pregnancy at 16 weeks of gestational age. The diagnosis and treatment is challenging and constitutes an urgent medical situation. Early sonologic diagnosis is possible and should be pursued when there is an eccentric or intramural sac. Past history of ectopic pregnancy and salpingectomy are known to be associated with this type of pregnancy and should alert the clinician to look closer when these risk factors are present

Keyword : Ectopic pregnancy, cornual pregnancy, recurrent ectopics, second trimester

BACKGROUND:

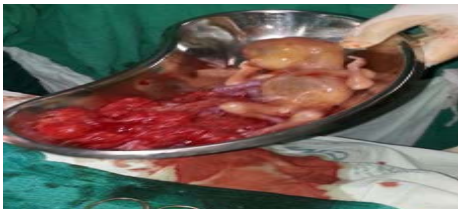
Ectopic pregnancies are a diagnostic challenge and can cause significant morbidity and mortality if not detected early. Cornual pregnancies account for 2-4% of all ectopic pregnancies, however the mortality rate is 6-7 times higher than that of other ectopics in general.(1) They belong to the group of unusual ectopics where the pregnancy is in a site other than the fallopian tubes. They are atypical in presentation, manifest later and might be more dangerous (2) Early diagnosis remains a challenge.

CASE:

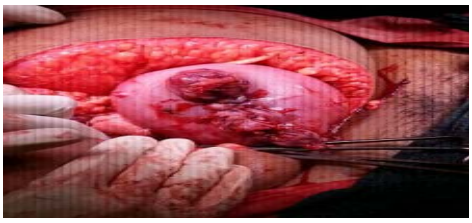
A 28 year old lady, third gravida , 1 previous miscarriage and 1 previous ruptured ectopic pregnancy presented at 16 weeks of gestational age to the emergency department with acute onset of severe abdominal pain and vomiting of one day duration. She had been having regular antenatal care at a local hospital since early pregnancy. She had an early pregnancy ultrasound at 8 weeks which was reported as a single intrauterine gestational sac with cardiac activity. Her previous obstetric history consisted of 1 spontaneous miscarriage at 60 days of amenorrhea for which she had a dilatation and curettage done. She had past history of a right sided ruptured ectopic pregnancy as well, for which she had a laparotomy and right salpingectomy 3 years earlier.

This time, she presented with clinical features of an acute abdomen after completion of 4 months of pregnancy. On clinical examination she was in shock with a pulse rate of 140 beats per minute, blood pressure of 80/50mmHg with tachypnea. Her sensorium was normal. She also had marked pallor. On examination of the abdomen, she had free fluid, guarding and rigidity with diffuse tenderness. A bedside FAST (focused abdominal sonology for trauma) revealed free fluid in the abdomen and a single live intrauterine fetus, the location of the sac in terms of whether eccentric or not could not be clearly defined. The uterine contour appeared to be maintained on ultrasound scan. Her haemoglobin was 4.7gm/dl, coagulation parameters were within normal limits and renal function tests were normal. She was resuscitated with crystalloids and blood and taken up for an emergency laparotomy with the working diagnosis of a heterotopic pregnancy or a rupture uterus (as a cause for haemoperitoneum). Intraoperative findings revealed the right cornua to be the seat of a ruptured ectopic pregnancy with a live fetus in situ. The gestational sac was intact with a live fetus and this was removed along with the placenta in toto. There was 1.2 litres of haemoperitoneum and 720 grams of clots which resulted in an estimated blood loss of around 3 litres. The right fallopian tube was absent and the right ovary was felt to be normal, buried under adhesions. The left tube and ovary were normal. The uterus did not appear to have any structural anomalies. The rent in the right cornua was repaired after wedge resection of the site of rupture and adequate haemostasis achieved. The initial haemodynamic instability of the patient settled with transfusion of blood intra - operatively. She had an uneventful postoperative period.

Intact gestational sac



16 week fetus with placenta



Uterus after repair

DISCUSSION:

Cornual pregnancies present a dilemna in terms of both diagnosis and management. The natural history of an undiagnosed cornual pregnancy typically results in rupture with massive haemorrhage in the early second trimester. This massive haemorrhage is attributed to the richness of the local vascularization through both the uterine and ovarian arteries (3) One important factor is diagnostic difficulty. They frequently masquerade as a normal intrauterine pregnancy and progress to a later gestation than other ectopics due to the relative distensibility of the cornual myometrium. Early diagnosis by ultrasound has been described and this requires a high index of suspicion and careful examination(4)(5). In the diagnosis of cornual pregnancy, the features sought are a live embryo in a gestational sac surrounded by myometrium below the cornua lying outside the endometrium, using a three-dimensional transvaginal scan (6). Suspicion may arise when sonography has revealed an intramural sac. There are also reported instances of misdiagnosis of a cornual pregnancy presenting at a later gestation with acute abdomen (7). Misdiagnosis can lead to grave consequences . A case of cornual rupture following an induced second trimester abortion has been reported (8) Sonography had not revealed any sign of an abnormal pregnancy. This is similar to our case, however our patient was taken up for an exploratory laparotomy based on a clinical impression consistent with haemoperitoneum. Cornual pregnancies are known for their presentation in the second trimester. Similar case reports of ruptured cornual pregnancy at various gestations have been described, one even at 28 weeks. (9)(10)(11)(12).A case of a true cornual pregnancy with a viable fetus which went to term has also been described(13). Previous salpingectomy and prior ectopic pregnancy have been shown to be significant risk factors for occurrence of a cornual pregnancy (14)(15), which are seen in our patient also. Uterine anomalies are also associated with this type of ectopic pregnancy and more often than not, it is the pregnancy in the rudimentary horn that is encountered (16) (17).

CONCLUSION:

A cornual gestation is one of the most hazardous ectopic gestations where the diagnosis and treatment is challenging and constitutes an urgent medical situation. Diagnosis is usually made at later gestations when there is rupture and considerable haemorrhage. Early sonologic diagnosis is possible and should be pursued when there is an eccentric or intramural sac. Past history of ectopic pregnancy and salpingectomy are known to be associated with this type of pregnancy. Hence greater care should be taken in these patients during the initial visits itself. This patient might have been diagnosed earlier if a closer look had been taken at the early ultrasound. In the next pregnancy, this patient will require counselling about the high chances of recurrent ectopics and she should be advised to consult an obstetrician as early as possible to confirm the pregnancy location.

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