A RARE CASE OF RUPTURED ANGULAR ECTOPIC PREGNANCY
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INTRODUCTION: Ectopic pregnancy is defined as pregnancy outside the endometrium of the uterus. 1.5–2% of all pregnancies are ectopic and ectopic implantation is a leading cause of pregnancy-related deaths. Angular pregnancy is an intrauterine pregnancy with a gestation implanted lateral in the uterine cavity medial to the uterotubal angle and the round ligament (1). Though it is actually an intrauterine pregnancy, angular pregnancy is a potentially dangerous condition associated with uterine rupture, often in the second trimester. The clinical course of an angular pregnancy is very variable with some full term pregnancies and many spontaneous miscarriages. Cornual pregnancy is pregnancy implanted in the upper lateral portion of a bicornuate or septate uterus. In literature angular pregnancy is used interchangeably with cornual and interstitial pregnancies, although the aforementioned conditions are very different entities with different clinical presentations and treatment (2) (Fig1).

CASE HISTORY: A 31 yr old G3A2 at 23 weeks of gestation presented in obstetrics emergency with complaints of severe lower abdominal pain, vomiting and giddiness for one day. She had two antenatal ultrasounds at 14 and 20 weeks of gestation suggestive of intra-uterine gestation in one horn of a bicornuate uterus. Clinical per speculum examination was however suggestive of a single Interstitial pregnancy is an ectopic pregnancy implanted intramurally in the proximal part of the fallopian tube laterally to the round ligament. This ectopic pregnancy typically presents and ruptures before gestation week 12, much like the more common tubal ectopic pregnancy. It is associated with higher mortality than tubal pregnancies though.

Fig1: Sites of ectopic pregnancy
There was history of curettage following previous two abortions, each at 4 months of gestation. No records were available regarding evaluation of previous pregnancy loss. On examination she was pale with clammy extremities, a pulse rate of 130 bpm, blood pressure with only systolic recordable at 70 mmHg and abdominal guarding with palpable free fluid and rigidity. Hb was 4.2 gm%. Ultrasound picture was suggestive of hemoperitoneum and a dead fetus with BPD corresponding to 19 weeks lying free within abdominal cavity. She was shifted immediately for laparotomy on suspicion of ruptured rudimentary horn ectopic.

Intra-operatively, there was hemoperitoneum of approximately 3 litres. However uterine fundus was not suggestive of bicornuate uterus and left intact tube and ovary was lateral to ruptured left horn with placenta implanted and fetus lying in abdominal cavity (Fig 2).

A left cornual wedge resection with left salpingectomy was achieved with 3 units packed cell transfusion and hemostasis ensured. Her post op recovery was uneventful and she was discharged on post op day 8.

**DISCUSSION:** Interstitial and cornual ectopics comprise 2-4% of all ectopic pregnancy and are often associated with pelvic inflammatory disease and assisted reproductive techniques. Along with abdominal pain with or without vaginal bleeding, these patients more often than not present with hemorrhagic shock. USG and quantitative hCG can help in early diagnosis. Cornual pregnancy is characterized by paucity of myometrial tissue around gestational sac as opposed to interstitial pregnancy(3). USG criteria for cornual pregnancy: a) An empty uterine cavity b) gestational sac separate from uterine cavity c) a myometrial thinning of less than 5mm around gestational sac- ‘the interstitial line’ sign while angular pregnancy has at least 5mm of myometrium on all sides(4).

Diagnosis of interstitial pregnancy can be confirmed by colour Doppler studies as evidenced by the ‘high velocity low resistance’ trophoblastic blood flow(5). Traditional surgery includes surgical cornual resection and at times hysterectomy is also mandated. Hence early diagnosis can allow for a conservative laparoscopic treatment and even medical management. While medical management with methotrexate is useful in some cases, there remain slight chances of rupture. Selective uterine artery embolisation has also been useful in few cases.
CONCLUSION: This was a case of ruptured angular pregnancy mistaken for a rudimentary horn rupture of bicornuate uterus, as evidenced by intra-operative findings and histopathology suggestive of myometrial lining of the gestational sac which arose from medial to left tubal interstitium. Such cases have to be dealt with a high index of suspicion coupled with good imaging to tide over life threatening hypovolemic shock that accompany them.

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