

Unruptured interstitial ectopic pregnancy: A rare case report

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Abstract: Interstitial pregnancy is an ectopic pregnancy that develops in the interstitial portion of the fallopian tube accounting 2-4%. It often mimics an ectopic pregnancy and ruptures much later leading to catastrophic outcomes. Hence correct diagnosis and prompt treatment helps prevent serious maternal morbidity and mortality. We report a case of interstitial unruptured ectopic pregnancy diagnosed on USG and managed surgically.

Keywords: Interstitial ectopic pregnancy; USG- ultrasonography; HCG

INTRODUCTION

Interstitial pregnancy is a rare but dangerous type of ectopic pregnancy. Interstitial pregnancy is an ectopic pregnancy that develops in the interstitial portion of the fallopian tube invading the uterine wall of the fallopian tube. It often ruptures much later than other tubal ectopic pregnancies as the myometrium is more distensible than the fallopian tube. It accounts for 2-4% of all the ectopic pregnancies. Increased vascularity associated with interstitial pregnancies is more likely to result in catastrophic hemorrhage and death. Hence, mortality in interstitial pregnancies is twice that of other tubal pregnancies. Here we report a case of unruptured interstitial ectopic pregnancy.

CASE REPORT

A 30 year old female G4P2L2A1 with 8.5 weeks by dates came to a tertiary health care unit for regular antenatal registration and was found to have a USG showing interstitial live ectopic pregnancy of 8.5 weeks. USG showed a gestational sac seen in the high fundic region well away from the endometrium on the right side with a surrounding myometrial thickness of less than 5mm which was suggestive of a right interstitial ectopic pregnancy. Serum beta HCG levels were 1,39,000IU/ml.

Patient had no complaints of bleeding per vaginum or pain in abdomen. She was hemodynamically stable. On examination, there was no guarding or tenderness and bilateral fornices were free. No cervical motion tenderness could be elicited.

After all routine preoperative investigations which were found to be within normal limits, decision was taken to post patient for an exploratory laparotomy for corneal excision. Intraoperatively, there was presence of a 5cms X 4cms vascular mass at the right cornua with the round ligament arising medial to it.



Fig-1: Picture denoting the intraoperative finding of an unruptured interstitial pregnancy

Before taking an incision, diluted vasopressin was injected around the mass to ensure lesser bleeding occurs. An Incision was taken on the superior surface of the bulge and products of conception were extracted out.



Fig-2: Picture showing the fetus with the chorionic tissue after incision taken on the superior surface of the interstitial region

After removal of products of conception, sutures were taken in the muscular layer to attain hemostasis. Free edges of the incision were sutured using delayed absorbable sutures. Right sided salpingectomy was done to prevent any future chances of ectopic pregnancy on that side. Patient withstood procedure without any postoperative complications.



Fig-3: Picture of the interstitium after removal of the products of conception

DISCUSSION

Interstitial ectopic pregnancy occurs when the embryo implants in the intramural portion of the fallopian tube which is tortuous and measures 0.7 mm in diameter and 1–2 cm in length comprising 2 – 4% of all tubal ectopic pregnancies [1]. Risk factors associated with the increased incidence of interstitial ectopic pregnancy include uterine anomalies, previous ectopic pregnancy or salpingectomy, pelvic inflammatory disease, artificial reproductive techniques and ovulation induction [2]. However, in our case, none of these causes could be elicited proving basis for natural cause as well. Diagnosis of interstitial pregnancy is usually done on transabdominal or transvaginal ultrasonography with few reports suggesting basis for 3D transvaginal or endovaginal ultrasonography. Diagnosis can be made based on the following criteria

- Uterine cavity should be empty of gestational sac
- Less than 10mm of lateral edge of the uterine musculature should be measured from the gestational sac
- The myometrial layer surrounding the sac would be thin.
- Early cornual gestation may be seen located in the lateral part of the uterus but if detected late the cornual gestation may mimic an eccentrically located intrauterine pregnancy also known as interstitial line sign (the echogenic line extending into the upper part of the uterine horn bordering the margins of the intrauterine gestational sac)
- In cornual gestation, a thin echogenic line may be seen extending upto the gestational sac representing either the interstitial portion of fallopian tube or the cavity of the endometrium depending on the size of the cornual gestation [3].

The diagnosis of interstitial pregnancy is difficult as they are diagnosed relatively late at around 7 to 12 weeks as the myometrium in this region can undergo distension allowing the pregnancy to grow [4]. There was no difficulty in diagnosis of our patient as gestational age was 8 weeks and it showed all the classical ultrasonography findings of a typical interstitial ectopic pregnancy. Most interstitial pregnancies present with rupture which leads to hypovolemia and shock due to profuse hemorrhage which may occasionally be life-threatening.

Treatment options for interstitial ectopic pregnancy include local injection or systemic therapy with methotrexate, local injection of potassium chloride, conservative laparoscopic surgery or uterine artery embolism and in emergency situations, corneal excision or hysterectomy [5]. Evidence of a hemorrhagic ectopic pregnancy is an absolute indication for laparotomy.

To conclude, the diagnosis of an interstitial ectopic pregnancy is usually difficult and delayed resulting in high morbidity and mortality. However with high suspicion, better radiological modalities for early diagnosis and immediate treatment can prevent this catastrophe. This case highlights the possibility of interstitial pregnancy occurring in patient without any risk factors and use of transvaginal ultrasound for early diagnosis of the same.

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