

Conservative Management of Interstitial Pregnancy

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Case Report

A 27-year-old second gravid was admitted with history of amenorrhea of 8 weeks' duration with lower abdominal pain and spotting per-vaginum of 2 days' duration. Her vitals were stable, and abdominal examination revealed a soft bulky 6 weeks' size uterus. Cervical motion tenderness was absent. In view of a positive urine pregnancy test, an urgent transvaginal ultrasound was performed, which revealed an empty uterus with endometrial thickness of 12 mm and a complex adenexal mass of 33 × 32 mm size on the right side (Fig. 1). There was no free fluid in the abdomen. Her β -hCG level was 6,460 mIU/ml.

With a provisional diagnosis of ectopic pregnancy, the patient underwent diagnostic laparoscopy which showed an unruptured right-sided interstitial ectopic pregnancy (Fig. 2). Since the patient was keen to preserve her fertility and her general condition remained stable, a conservative

medical management was planned for her. She was administered with a two-dose regimen, of intramuscular injection Methotrexate, in the dose of 50 mg/sq m of body surface area, on day 1 and day 4. She was closely monitored for any signs of rupture like pain abdomen, tachycardia, or syncope. She remained asymptomatic and repeat β -hCG value on day 7 showed more than 15 % decline (3,009 mIU/ml), as compared with day 4 levels (3,674 mIU/ml). Hence, the patient was discharged, with advice for weekly follow-up.

During the follow-up visit, β -hCG and ultrasound examination was conducted. β -hCG value returned to normal on the 8th visit, and thereafter, the patient was reviewed fortnightly. The complex mass in right cornu resolved after 5 months. Patient was planned for a hysterosalpingography 3 months thereafter, to establish tubal patency. However, she was lost to follow-up.

Discussion

An interstitial pregnancy is a rare form of ectopic pregnancy, which is implanted in the interstitial portion of the fallopian tube. While interstitial pregnancies account for only 2–4 % of all ectopic gestations, they cause a disproportionately high incidence of hemoperitoneum and shock, and the mortality rate is approximately twice that of other types of ectopic pregnancies [1].

The terms interstitial and *cornual pregnancies* have been used interchangeably, but the term cornual pregnancy

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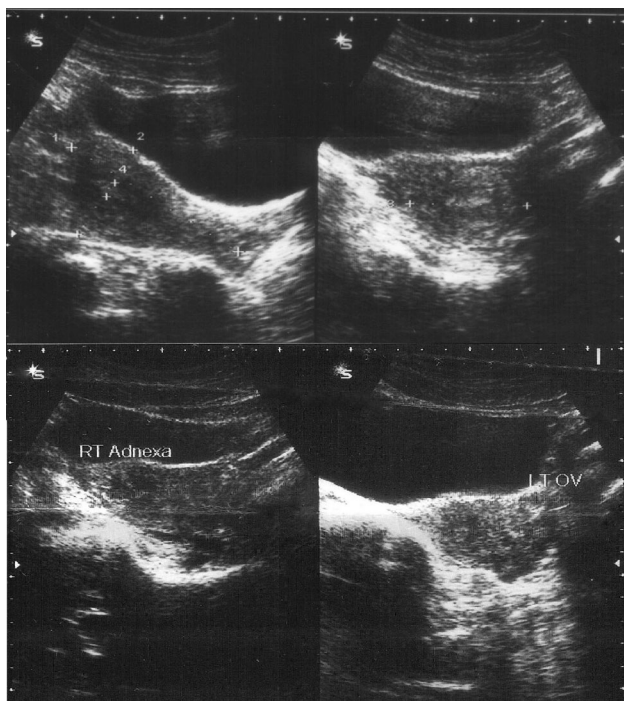


Fig. 1 Empty uterus with adenexal mass (Rt)

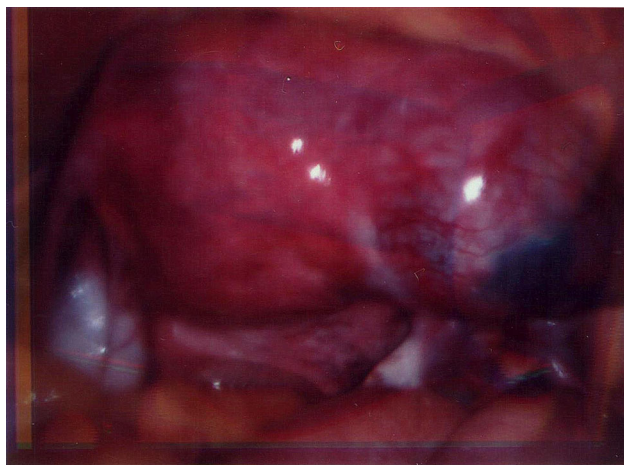


Fig. 2 Unruptured interstitial pregnancy (Rt)

usually denotes gestation in one horn of a bicornuate or septate uterus [1].

The interstitial portion of the fallopian tube is highly vascular, with a thick muscular wall. This allows for the gestation to advance much further before rupture takes place with excessive intraperitoneal hemorrhage.

The sonographic criteria for the diagnosis of interstitial pregnancy include (1) an empty uterine cavity, (2) a

chorionic sac seen separately and more than 1 cm from the most lateral edge of the uterine cavity, and (3) a thin myometrial layer surrounding the chorionic sac [2]. A suggestive but nonspecific sign is an eccentrically located gestational sac. The high velocity, low impedance flow around gestations results from the hemodynamics of early placentation. In the case described above, gestational sac could not be identified, and the complex mass seen was reported as an adenexal mass. The interstitial pregnancy was confirmed during laparoscopy.

The conventional treatment of interstitial pregnancy has been cornual resection or hysterectomy. Early diagnosis of interstitial pregnancy has made various conservative and less-invasive management techniques feasible.

Laparoscopic approach for cornual excision or salpingotomy via myometrium has been reported. Electrocoagulation of ascending branch of uterine artery and dilute vasopressin injection into the wall of ectopic gestation were employed to decrease the blood loss during surgery [3]. Case report of combined use of hysteroscopy and laparoscopy has been described, where the authors used 8F pediatric suction catheter to suck out the ectopic gestation under laparoscopic guidance, and the evacuation procedure was completed using a grasper along with the hysteroscope. Conservative management of interstitial pregnancy using injection potassium chloride or methotrexate into the gestational sac has been successfully achieved [2].

When the initial β -hCG levels are more than 1,000 mIU/ml, single-dose treatment with injection methotrexate has been associated with higher failure rates for tubal ectopic gestation. In our case, the initial β -hCG levels were 6,460 mIU/ml, and in view of the interstitial pregnancy, the two-dose regimen was instituted using the same guidelines as for tubal ectopic gestation.

Weekly follow-up with β -hCG levels and ultrasound examination are important as low and declining serum beta HCG levels are not always associated with resolution of ectopic gestation and rupture can still occur during the expectant management.

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