

## Case Report

# Heterotopic Pregnancy – A Case Report and Review of Literature

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**Abstract:** Heterotopic pregnancy is defined as the combined occurrence of intrauterine and extrauterine gestations. It is a rare and dangerous condition. Heterotopic pregnancy is more common when pregnancy is achieved by assisted reproduction techniques than in natural conceptions. A meticulous evaluation is required when an ectopic pregnancy is suspected to rule out the presence of heterotopic pregnancy and thus help in early diagnosis and appropriate management. We report a case of heterotopic pregnancy after ovulation induction in a 29-year female who presents with 8 weeks of amenorrhea and acute pain in lower abdomen associated with single episode of spotting per vaginum.

**Keywords:** heterotopic pregnancy, ectopic pregnancy.

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## INTRODUCTION

Heterotopic pregnancy or multi-sited pregnancy is simultaneous occurrence of intrauterine and extrauterine gestations. Theoretically incidence of heterotopic pregnancy in natural conception was considered 1:30,000 (Reece, E. A., *et al.*, 1983). However, in recent years due to prevalence of pelvic inflammatory diseases and frequent use of intrauterine contraceptive devices; incidence of ectopic pregnancy has increased. Ectopic pregnancy is even more common in assisted reproductions. Recent data suggest incidence of overall heterotopic pregnancy around 1:7,000 and as high as 1:900 in assisted reproduction. (Lyons, E.A., *et al.*, 1998; Glassner, M. J., *et al.*, 1990) First case of heterotopic pregnancy was described by Duverney in 1708 in autopsy and first case resulting from assisted reproduction techniques was described by Yovich *et al.*, in 1985. Recognised risk factors predisposing to heterotopic pregnancy are use of IUCDs, PID, history of prior tubal surgery and previous ectopic pregnancy (Gruber, I., *et al.*, 2002; Pisarska, M. D., & Carson, S. A. 1999). Current advances in diagnostic methods and management has lowered the mortality rates due to ectopic pregnancies.

## CASE REPORT

A 29-year G3P1 with 8 weeks amenorrhea and positive urine pregnancy test done at home; presents to the obstetrics and gynecology causality with acute pain in lower abdomen and spotting per-vaginum. On PV examination, uterus appears bulky, cervical motion and left adnexal tenderness elicited. General examination show high pulse rate (110 bpm) and normal blood pressure (110/70 mmHg). Per -abdomen was soft. USG was advised to rule out ectopic pregnancy. On TVS, single live intrauterine gestational sac with good decidual reaction noted. Fetal pole with CRL 1.49 cm corresponding to 7 weeks 6 days and yolk sac seen with in gestational sac (Figure 1).



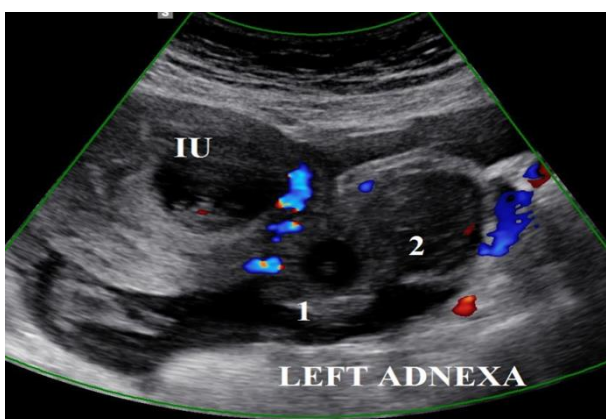
**Figure 1. Single live intrauterine gestational sac of 7 weeks 6 days with mild subchorionic separation towards fundal side of sac.**

Mild subchorionic separation also noted. A cystic lesion with thick echogenic rim measuring 3.2 x 2.4 cm seen in left adnexa with intracystic yolk sac and fetal pole like structure with CRL of 0.5 cm corresponding to 6 weeks 1 day also noted suggestive of left ectopic pregnancy (Figure 2).



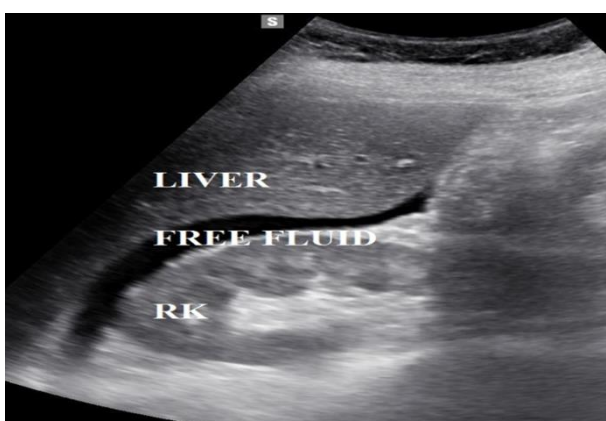
**Figure 2. Left ectopic gestational sac. No cardiac activity noted.**

Another heterogenous hypoechoic lesion measuring 2.2 x 2.0 cm seen in left adnexa with central cystic changes also noted which may be another ectopic gestation or corpus luteal cyst(Figure 3).



**Figure 3. IUP with concurrent left ectopic pregnancy(1) and another cystic lesion with internal echoes(2)**

Bilateral ovaries were not separately delineated. Mild free fluid seen in pelvis and Morrison's pouch with internal echoes suggestive of hemoperitoneum(Figure 4).



**Figure 4. Free fluid in Hepato-renal pouch.**

Patient was taken for emergency laparoscopy and left salpingectomy was done. Patient was allowed to continue intrauterine pregnancy and she delivered a healthy baby at 36 weeks period of gestation.

## DISCUSSION

Incidence of heterotopic pregnancy has increased multifold due to assisted reproduction techniques over natural conception in recent years. (GOLDMAN, G. A., et al., 1992; Wallach, E. E., et al., 1996) Early diagnosis is often difficult in presence of intrauterine pregnancy. An ectopic pregnancy with concurrent intrauterine pregnancy can be mistaken for corpus luteal cyst and thus result in delay in diagnosis and management. (Ikechebelu, J. I., & Eleje, G. U. 2012) During routine early pregnancy ultrasound examinations, bilateral adnexa, cervical canal, and uterine horns should be carefully evaluated even after an IUP has been confirmed to rule out an ectopic pregnancy, especially in patients conceiving with assisted reproductive techniques.

In our case, patient presents with 8 weeks of amenorrhea and positive pregnancy test. Suspicion of ectopic pregnancy was high in view of acute lower abdomen pain and spotting per vaginum. TVS confirms the left ectopic pregnancy with concurrent intrauterine pregnancy. Patient was operated for left ectopic pregnancy and IUP was continued and delivered at 36 weeks by caesarean section. Early diagnosis in our case helped in timely intervention.

## CONCLUSION

Incidence of heterotopic pregnancy has increased in recent years due to several predisposing factors. A meticulous evaluation is required when an ectopic pregnancy is suspected to rule out the presence of heterotopic pregnancy and thus help in early diagnosis and appropriate management. Conflict of interest-None.

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## ABBREVIATIONS

IUCD- intrauterine contraceptive devices  
 PID- pelvic inflammatory diseases  
 CRL- crown rump length  
 IUP - intrauterine pregnancy.  
 ART- assisted reproduction techniques or technologies.  
 TVS- trans vaginal sonography  
 USG- ultasonography  
 bpm- beats per minute.