

## Case Report

# MISSED ABORTION WITH TUBAL ECTOPIC PREGNANCY- PRESENTATION OF HETEROTOPIC ECTOPIC PREGNANCY-A DIAGNOSTIC DILEMMA

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## ABSTRACT

Heterotopic Pregnancy (HP) is the simultaneous development of an intra-uterine pregnancy and ectopic pregnancy. In natural cycle, it is a very rare event. With the increasing popularity of ovulation induction performed during assisted reproductive techniques, its incidence has significantly increased. However, diagnosis is often delayed because of its rarity and difficulty. Heterotopic pregnancy is an important differential diagnosis to consider in patients with intra-uterine pregnancies presenting with acute abdominal pain and hemoperitoneum. Here, we are reporting a case of heterotopic pregnancy in a 29-year-old woman who presented with symptoms and signs of ruptured tubal pregnancy with previous evacuation for missed abortion at 8 weeks of amenorrhea.

**Keywords:** Heterotopic, Intra-uterine, Rupture, Ectopic

## INTRODUCTION

Ectopic pregnancy (EP) is a leading cause of maternal morbidity and mortality in the first trimester. Heterotopic pregnancy, defined as the coexistence of intrauterine and extrauterine gestation is very rare, estimated incidence is between 1/8000 and 1/30,000 (Kamath *et al.*, 2010). Diagnosis of these is not always easy and often missed. We present a rare case of heterotopic pregnancy with missed abortion and ruptured tubal gestation in a natural conception.

## CASES

A 29 yr old woman, G2A1 reported in emergency with amenorrhoea 2 and half months, severe pain abdomen and bleeding since 4 days. USG showed G.sac of 8 week with no cardiac activity in right adnexa and mild ascitis/ hemoperitoneum on TVS.P/V examination revealed normal sized uterus. Cervical movements were tender and a tender mass 4X4 cms was felt in right fornix.

She had been admitted in another hospital three days back. Discharge summary showed she had bleeding per vaginum. USG then had shown tiny deformed gestational sac of 5.1 week with irregular fundal reaction suggestive of missed abortion. Uterus had been six weeks size, products felt in vagina and evacuation had been done and histopathology of which showed products of conception. Patient had been discharged in satisfactory condition next day.

Patient was married for 11 yrs. previously had a spontaneous abortion not followed by evacuation 5 yrs ago. She had been investigated and given ovulation induction drugs but had not conceived. This was a spontaneous conception and her urine pregnancy test had been positive.

Emergency laparotomy was performed. There was hemoperitoneum and right sided ruptured tubal pregnancy with 8 week size fetus with growing placenta. Uterus was normal in size. Right salpingectomy was done and tissue sent for HPR which confirmed Right tubal pregnancy. PCR for Mycobacterium Tuberculosis was negative. Her post-operative period was uneventful and discharged on 6<sup>th</sup> post operative day.

## DISCUSSION

Heterotopic Pregnancy (HP) is the simultaneous development of an intra-uterine pregnancy and ectopic pregnancy. The increased incidence of multiple pregnancies with ovulation induction and IVF increases the risk of both ectopic and heterotopic gestation and is rare in natural cycles (Shetty and Shetty, 2013).

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The hydrostatic forces generated during embryo transfer may also contribute to the increased risk (Govindarajan and Rajan, 2008). There is increased risk in patients with previous tubal surgeries (Gruber *et al.*, 2002).

Heterotopic pregnancy can have various presentations. It should be considered more likely (a) after assisted reproduction techniques, (b) with persistent or rising chorionic gonadotropin levels after dilatation and curettage for an induced/spontaneous abortion, (c) when the uterine fundus is larger than for menstrual dates, (d) when more than one corpus luteum is present in a natural conception, and (e) when vaginal bleeding is absent in the presence of signs and symptoms of ectopic gestation (Ahmed *et al.*, 2004). Intrauterine gestation with hemorrhagic corpus luteum can simulate heterotopic/ectopic gestation both clinically and on ultrasound (Govindarajan and Rajan, 2008). Other surgical conditions of acute abdomen can also simulate heterotopic gestation clinically and hence the difficulty in clinical diagnosis. Bicornuate uterus with gestation in both cavities may also simulate a heterotopic pregnancy.

Heterotopic pregnancies pose a diagnostic dilemma because an early transvaginal ultrasound may not diagnose an ex-utero gestation in all cases (Ahmed *et al.*, 2004). Sometimes the presence of a haemorrhagic corpus luteum can confuse and delay the diagnosis of a heterotopic pregnancy (Sohail, 2005). The detection rate of heterotopic pregnancy can vary from 41 to 84% with transvaginal ultrasound scans (Tal *et al.*, 1996). It is influenced by factors like routine and easy access to transvaginal ultrasound scans for high risk patients with a history of previous ectopic pregnancy and those who received fertility treatment (Marcus *et al.*, 1995). High resolution transvaginal ultrasound with color Doppler will be helpful as the trophoblastic tissue in the adnexa in a case of heterotopic pregnancy shows increased flow with significantly reduced resistance index (Cheng *et al.*, 2004).

Carefully examination of the adenexa during USG of first trimester (as intrauterine pregnancy does not exclude extrauterine pregnancy even in natural cycles) would avoid calamities like these.

Our case did not have any risk factor for the heterotopic gestation and presented with missed abortion and ruptured tubal pregnancy with hemoperitoneum. The important learning point from our case was that the diagnosis was not suspected at the initial presentation and the patient presented subsequently with acute abdominal pain with intra peritoneal haemorrhage.

### REFERENCES

**Ahmed A, Tom B and Calabrese P (2004).** Ectopic pregnancy diagnosis and the pseudosac. *Fertility and Sterility* **81**(5) 1225-28.

**Cheng PJ, Chueh HY and Qiu JT (2004).** Heterotopic pregnancy in a natural conception cycle presenting as haematomatra. *Obstetrics & Gynecology* **104** 195-8.

**Govindarajan MJ and Rajan R (2008).** Heterotopic pregnancy in natural conception. *Journal of Human Reproductive Sciences* **1**(1) 37-38.

**Gruber I, Lahodny J, Illmensee K and Losch A (2002).** Heterotopic pregnancy: Report of three cases. *Wiener klinische Wochenschrift* **114** 229-32.

**Kamath MS, Aleyamma TK, Muthukumar K, Kumar RM and George K (2010).** A rare case report: ovarian heterotopic pregnancy after in vitro fertilization. *Fertility and Sterility* **94**(5) 1910.e9-1910.e11.

**Marcus SF, Macnamee M and Brinsden P (1995).** Heterotopic pregnancies after in vitro fertilization and embryo transfer. *Human Reproduction* **10** 1232-1236.

**Shetty SK and Shetty AK (2013).** A case of heterotopic pregnancy with tubal rupture. *Journal of Clinical and Diagnostic Research* **7**(12) 3000-1.

**Sohail S (2005).** Haemorrhagic corpus luteum mimicking heterotopic pregnancy. *Journal of the College of Physicians and Surgeons Pakistan* **15** 180-181.

**Tal J, Haddad S and Gordon N (1996).** Heterotopic pregnancy after ovulation induction and assisted reproductive technologies: a literature review from 1971 to 1993. *Fertility and Sterility* **66** 1-12.