

## HETEROTOPIC PREGNANCY

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### ABSTRACT

*A 30 years old G5 P3 +1 with three months amenorrhea and bleeding off & on per vaginum and syncopal attacks was diagnosed as having heterotopic pregnancy on sonography. Laparotomy and left salphingectomy was performed. Subsequent ongoing alive intrauterine pregnancy was delivered by vaginal route at term.*

**Key words:** Ectopic pregnancy, Heterotopic pregnancy, Amenorrhea.

### INTRODUCTION

Heterotopic pregnancy refers to the simultaneous co-existence of extra uterine and intra uterine pregnancy. In spontaneous conception the incidence varies from 1: 4000 to 1:30,000 pregnancies<sup>1</sup>. The incidence of heterotopic pregnancy rises to 1 in 100 pregnancies following ovarian hyperstimulation and in vitro fertilization<sup>2</sup>. Risk factors include previous ectopic pregnancy, pelvic inflammatory disease, previous infertility surgery, ovulation induction and previous use of intra-uterine contraceptive device (IUCD). Diagnosis is often delayed especially in cases where no predisposing factors exist, causing life threatening situations.

### CASE REPORT

A 30 years old woman married for fifteen years gravida 5; para 3; abortion 1; presented in the gynae out patient clinic with a history of 3 month amenorrhea and spotting per vagina for the last one month. There was also history of vague abdominal pain mostly on left side for the last 1 month. There was history of syncopal attack for the last 7 days. There was no history of fever or bowel irregularity. Symptoms of early pregnancy like morning sickness and vomiting sometime were same as in her other pregnancies. On abdominal examination, there was tenderness in left iliac fossa, uterus was palpable about 14 weeks in size and 5 cm well defined mass also palpable in left iliac fossa. Pelvic examination also confirmed the abdominal finding. Cervical excitation was present and there was minimal vaginal bleeding. Her vital

signs were stable with a blood pressure of 110/70, pulse 98/min, temperature of 98.4 F and she was looking pale. Pelvic ultrasonography was performed which revealed a single embryo of 11 weeks duration with active cardiac pulsation. Another gestational sac with a single embryo without cardiac pulsation was seen outside the endometrial cavity in the left adnexa, suggestive of ectopic pregnancy. Small amount of free fluid was seen in culdesac. Her hemoglobin was 9.9 gm%, and other routine investigations were within normal limits. Intravenous fluids and one unit of fresh blood was transfused. At emergency laparotomy, uterus was 12-14 weeks size. Left tube was ruptured at the ampullary region with a well formed fetus extruded from the tube, placental tissue still adherent to the torn off fimbrial end and also to the omentum and gut. Left ovary, right ovary and tube were normal looking. Left salphingectomy was performed and 200cc of blood clots were removed from the peritoneal cavity. Haemostasis was secured and abdomen was closed after washing with normal saline. Postoperatively the patient was put on progesterone support for four weeks. The patient had an uneventful postoperative course and was discharged home in a satisfactory condition with an intact intrauterine pregnancy. Histopathology confirmed the presence of chorionic villi. She attended the antenatal clinic regularly and no complication occurred. She went into spontaneous labour at term and delivered an alive male baby of 3 kilogram by vaginal route.

### DISCUSSION

Combined intra-uterine and extra-uterine

pregnancy is a rare occurrence. Emergency medicine has encountered in the last decade a gradual increase in cases of heterotopic pregnancy with rupture of the ectopic part. The rise of this entity is mainly due to ovulation inductin performed in women undergoing assisted reproductive techniques<sup>3</sup>. After in-vitro-fertilization (IVF) embryo transfer (ET) 1-3% of all clinical pregnancies are heterotopic<sup>1</sup>. Though heterotopic pregnancy is an exceedingly rare condition but over a thousand cases have been documented in the literature since the first description of heterotopic pregnancy in 1708<sup>4</sup>.

The established risk factor for heterotopic pregnancy are same as for ectopic pregnancy which include history of pelvic inflammatory disease previous use of IUCD, previous tubal surgery, ectopic pregnancy and ovarian hyperstimulation<sup>5</sup>. Siegle JC reported a case of spontaneous heterotopic pregnancy after a prior 2 ectopic pregnancies<sup>6</sup> (Ref.). In our patient none of the above mentioned risk factor was present.

Barrenetxea et al concluded from their study (2007) that despite the increased medical knowledge and use of improved reproductive technologies, heterotopic pregnancy still remain a diagnostic and therapeutic challenge to practitioners<sup>7</sup>. Thus the importance of high index of suspicion especially in the presence of high risk factors mentioned above is the single most important factor for diagnosis. The serial BHCG concentration is not reliable due to presence of a normal intrauterine pregnancy. The clinician and ultrasonographer should be aware that the presence of a normal intrauterine pregnancy does not rule out a concomitant ectopic pregnancy particularly in high risk.

The treatment of ectopic pregnancy is operative. Once the ectopic pregnancy has been removed, the intrauterine pregnancy continues in approximately 75% of patients as in our case. With widespread use of transvaginal ultrasonography, physician have attempted treatment of heterotopic pregnancies with minimally invasive procedure such as trans vaginal guided local injection of

methotrexate<sup>8</sup>, hyperosmolar glucose<sup>9</sup> and potassium chloride<sup>2</sup> after aspiration of ectopic gestational sac without adversely affecting the concurrent intrauterine pregnancy. REFERENCES

1. Ectopic pregnancy in Shaw RW, Soutter WP, Startan S 1 (edit) Gynaecology 3rd edition Establishment Department Edinburgh; Churchill Livingstone 2002; 371-85.
2. Goldstein JS, Ratts VS, Philpott T, Dahan MH. Risk of surgery after use of potassium chloride for treatment of tubal heterotopic pregnancy. *Obstet Gynecol* 2006; 107: 506-8.
3. Korkontzelos I, Antonion N, Stefos T, Kyparos I, Lykoudis S. Ruptured heterotopic pregnancy with successful obstetrical outcome: a case report and review of the literature. *Clin Exp obstet Gynecol*. 2005; 32: 203-6
4. Zahoor S, Hussain M, Yasmin H, Noorani KJ. Heterotopic pregnancy-outcome and management: a case report. *J Coll Physicians Surg Pak* 2004; 14: 494-95.
5. Ankum WM Mol BW, Van der Veen, F. Bossuyt PM. Risk factors for ectopic pregnancy: a meta-analysis. *Fertil Steril* 1996; 65-1093.
6. Siegle JC, Jock R E. Heterotopic pregnancy after 2 prior ectopic pregnancies: a case report. *J Reprod Med*. 2006; 729-32.
7. Barranetxae G, Barinaga RL, Lopez de LA, Agirregoikoa JA, Mandiola M, Carbonero K. Heterotopic pregnancy: two cases and a comparative review. *Fertil Steril* 2007; 417-9-15.
8. Oyawoyea S, Chanderb B, Pavlovicb B, Hunterb J, Gardib AA, Heterotopic pregnancy; successful management with aspiration of cornual/interstitial gestational sac and instillation of small dose of methotrexate. *Fetal Diagn Ther* 2003; 18: 1-14.
9. Goldberg JM, Bedaiwy MA. Transvaginal local injection of hyperosmolar glucose for the treatment of heterotopic pregnancies. *Obstet Gynecol*. 2006; 509-10.

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