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Case Report

Heterotropic pregnancy following induction of ovulation with clomiphene

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ABSTRACT

Heterotropic pregnancy is a rare entity with a difficult preoperative diagnosis and potentially dangerous outcome.

A case of 36 years old G₃P₂ had received Clomiphene Citrate for three cycles for ovulation induction presented with amenorrhea for two months with severe pain in abdomen and bleeding.

She was diagnosed as a case of right ectopic with 8 weeks of intrauterine pregnancy.

Keywords: Heterotropic pregnancy, Clomiphene citrate, Ovulation induction

INTRODUCTION

The coexistence of intrauterine pregnancy and ectopic pregnancy is called Heterotropic Pregnancy. It is a rare entity. The incidence of heterotropic pregnancy has been calculated as 1 in 30,000 spontaneous pregnancies.¹ However, it occurs more frequently in women undergoing ovulation induction. Occurrence of heterotropic pregnancies among patients who have undergone one of the assisted reproductive technologies is much higher, closer to 1 in 100 pregnancies.²

CASE REPORT

A 36yr old woman, G₃P₂-2FTND with two female children, alive and healthy was reported On 14th July 2014 in the emergency hours with complaints of amenorrhea two months, severe pain in abdomen and bleeding per vagina since few hours. Her LMP was on 7th May 2014. She conceived after three cycles of ovulation induction with clomiphene at primary care setting.

On examination - She was markedly pale with a heart rate of 110 /min, and blood pressure of 90/50mm of Hg. The

abdomen was distended, tenderness was present all over the abdomen with guarding and rigidity. Bowel sounds were absent.

On vaginal examination uterus was soft 8 to 10 weeks size, mild bleeding present, external os tip of finger and internal os closed. Cervical movements are tender, both fornix were very tender. Urgent ultrasound scan of the abdomen showed moderate free fluid in the abdomen. Uterus is bulky with a well-defined gestational sac in the uterus with good vascularity seen around, with secondary yolk and embryo.

Ges sac - 2.69cm = 8 weeks 0 days, CRL - 0.65cm = 6 weeks 3 days, EDD = 28 Feb 2015.

Cx normal with internal os is closed. An ill-defined mixed echogenicity lesion of size 5.5 X 5.0cm seen in right adnexa involving right ovary and fallopian tube.

A peritoneal tap showed a bloody aspirate. Urinary pregnancy test was positive. Her Hb was 6.5gm%, blood group B+ ve, and Leukocyte count 12,600/mm³, HIV-ve, HBs Ag-ve.

She was immediately posted for emergency laprotomy after resuscitation and arrangement of two units of blood. On opening the abdominal cavity hemoperitoneum was found of approximately 1000ml with clots. Right tube was adherent with ovary and embedded in clots. After removing clots it was found that ampullary region of right tube is engorged and distorted, active bleeding and clots were present at fimbria. Right salpingectomy was performed. Uterus was soft and 8 to 10 weeks size and left tube and ovaries were normal. After peritoneal cleaning abdomen was closed. Right tube and sac was sent for histopathology that confirmed the diagnosis of right tubal pregnancy. Two units of fresh blood were transfused. She was kept under I/V Isoxsuprine Hydrochloride drip, hydroxy progesterone caporate 500 mg Intramuscular weekly and BetaHCG 5000 IU intramuscularly for four weeks from fourth day onwards she was shifted on oral Isoxsuprine Hydrochloride tablets and micronized progesterone and folic acid tablet. On 8th postoperative day sutures were removed and she was discharged on the same day.

After one month she came back and a repeat Doppler study confirmed the intact and healthy intra uterine gestation. She was follow up with serial Ultra Sound and she delivered a full term healthy male baby by LSCS on 21st Feb 2015.

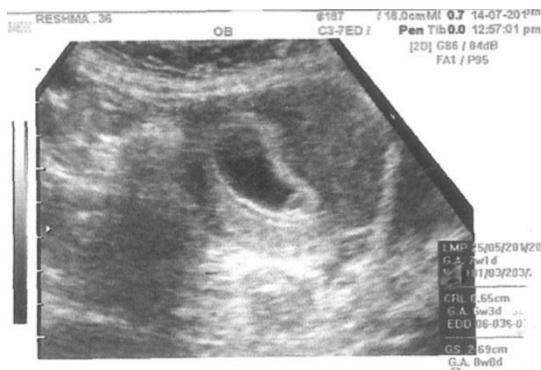


Figure 1: Uterus with well defined gestational sac with secondary yolk and embryo.



Figure 2: Complex right adnexal mass



Figure 3: Fallopian tube embedded in Clots.



Figure 4: Uterus with Right tube engorged and lacerated with clot



Figure 5: Cut section of ampullary part of fallopian tube with Gestational sac and Clot

DISCUSSION

Heterotrophic pregnancy a rare condition first described by Duverney in 1708, it represents a form of dizygotic twinning with separate sides of implantation of blastocyst.¹ The incidence is increased with use of ovarian stimulation with IVF it is about 1/35 - 1/100 clinical pregnancies.³

Selvaraj K et al.⁴ reported 0.49% risk of Heterotrophic pregnancy after IVF and with IUI it is 0.16% in their series. The authors found that the risk HTP appeared to increase with the number of embryo transfer.

The first case of HTP following clomiphene-induced ovulation was reported in 1971. Clomiphene by hyperstimulating ovaries and probably by altering the myoelectrical activity responsible for propulsive action of fallopian tubes.^{5,6}

Yelamanchi S et al.⁶ reported incidence of HTP in their study was 1.3/1000 deliveries. Early diagnosis of HTP is important for the intrauterine fetus and the mother. The options of management like Medical treatment (potassium chloride, methotrexate and prostaglandins) are available but surgical intervention is better approach than medical management for intrauterine pregnancy in Heterotopic pregnancies.^{6,7}

Combination of pelvic pain, adnexal mass, peritoneal irritation and enlarged uterus are the major clinical features associated with combined pregnancy. Diagnosis of this rare condition will be difficult and careful ultrasound examination is mandatory. Beta HCG levels are unreliable and misleading for diagnosis. Transvaginal ultrasound is more reliable.^{3,7,8} A diagnostic laparoscopic examination should be performed whenever the diagnosis remains unclear.⁹⁻¹² HTP is no longer a medical curiosity a high index of suspicion, prompt diagnosis, rapid fluid and blood infusion and early intervention are required to salvage the intrauterine pregnancy and to prevent maternal morbidity and mortality. There is a need to consider it in the differential diagnosis of abdominal pain in pregnancy especially after ovulation induction. CC that is used quite frequently by most of the practitioners is felt safe by them but it should be used with caution.

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