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**Case Report** 

# A rare case report of intraoperative diagnosis of ovarian ectopic pregnancy, managed surgically

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### **ABSTRACT**

Ovarian ectopic pregnancy (OEP) accounts for <1% of ectopic pregnancies. Its underlying etiology is likely secondary to fertilized oocyte reflux to ovary. The study represents left adnexa mass query ectopic. The patient was successfully treated by exploratory laparotomy with intraoperative findings suggestive of left ovarian ectopic with resection of gestational sac and left oopherotomy.

Keywords: OEP, Left ovarian oopherotomy

# INTRODUCTION

Ovarian ectopic pregnancy (OEP) is a rare variant of ectopic implantation. It ends with rupture before the end of the first trimester. OEP incidence after natural conception ranges from 1 in 2000 to 1 in 60000 deliveries and accounts for 3% of all ectopic pregnancies. One in every nine ectopic pregnancies among intra uterine devices (IUD) users is an ovarian pregnancy. Diagnosis is intricate and based on surgical and histopathological observations.

Risk factors for OEP are similar to those for tubal pregnancy, but use of an IUD seems to be disproportionately associated. Although the ovary can accommodate more readily than the fallopian tube to the expanding pregnancy, rupture at an early stage is the usual consequence.<sup>1</sup>

### **CASE REPORT**

## Presentation

A 29-year-old primigravida 7+4 weeks presented with left acute lower abdominal pain.

# Menstrual cycle

It was regular LMP 28/08/2022

# Investigation

A 9.2×8.7×3.8 mm sac is noted the left adnexa adjacent and medial to the left ovary. There is increased vascularity around the sac. Moderate amount of fluid is noted the pelvis with internal echoes s/o hemoperitoneum (80-100 CC).

# Examination

Pulse 110 bpm, blood pressure 100/70 mmhg, pallor, no abdominal tenderness or rigidity. Per vaginal examination uterus normal size, left fornical fullness, no cervical motion tenderness.

# Intervention

Emergency laparotomy done→intraoperative finding suggestive of→left ovarian ectopic mass of 2×1 cm →resection of gestational sac with left oopherotomy

done→ both the fallopian tubes normal. Recovery uneventful. Discharged on day 4 post procedure with down trending b-HCG

# Follow up

Requires serial b-HCG until negative due to risk of pregnancy tissue recurring. Histopathology report suggestive of ectopic pregnancy in left ovary, no evidence of malignancy or gestational trophoblastic disease.



Figure 1: Intraoperative findings of OEP. 8×5×4 mm sac noted in left ovary.



Figure 2: Sac removed.

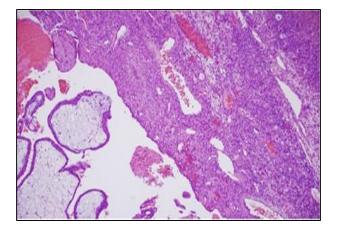


Figure 3: Histopathology report suggestive of OEP.

### **DISCUSSION**

Primary ovarian pregnancy is one of the rarest types of extrauterine pregnancy. The cause of primary ovarian pregnancy remains obscure, and it would seem to be secondary to reflux of the fertilized oocyte to the ovary. The cases of ovarian pregnancy after IVF reported in the literature support the theory of reflux. Other hypotheses have suggested interference in the release of the ovum from the ruptured follicle, malfunction of the tubes and inflammatory thickening of the tunica albuginea. Intrauterine contraceptive devices may also be a cause. As a matter of fact, an intrauterine contraceptive device is found in 14% to 30% of patients with a nonovarian extrauterine pregnancy, while it is found in proportions ranging from 57% to 90% of patients with a primary ovarian pregnancy. Its action could be explained by altered tubal motility, thereby facilitating the implantation in the ovary.

The signs and symptoms of ovarian pregnancy are similar to tubal pregnancy. Therefore, a differential diagnosis must be considered with tubal pregnancy, ruptured hemorrhagic corpus luteum, or chocolate cyst.

Little evidence is available in the literature about medical treatment with methotrexate, probably because ovarian pregnancy is diagnosed in emergency settings when surgical treatment represents the gold standard. Laparoscopy with conservative treatment is increasingly indicated. Several surgical techniques have been described: ovarian wedge resection for ovarian pregnancy, ovarian pregnancy enucleation, corpus luteum cystectomy for the trophoblast, trophoblast curettage with coagulation or hemostatic suture of the bed of ovarian pregnancy with total conservation of the ovary. In rare cases, due to the advanced development of pregnancy, ovariectomy and oophorectomy may be necessary.

A single case of recurrence of ovarian pregnancy has been described in the literature and involved the contralateral ovary in contrast to approximately 15% recurrent tubal pregnancies.<sup>2</sup>

# Spigelberg criteria for OEP

Intact fallopian tube on affected side. Fetal sac occupies position of affected ovary, affected ovary is connected to uterus by the ovarian ligament and ovarian tissue located within sac wall.

# **CONCLUSION**

These cases emphasize the ability of ectopic pregnancy been asymptomatic through the course of pregnancy and necessity for high quality prenantal care, skilled clinical surgeon and importance of determining fetal site during pregnancy. Ectopic pregnancy is likely to upsurge in incidence because of increased use of ovulatory drugs, IUDs, assisted reproductive techniques. Rapid clinical recognition, prompt clinical intervention or methotrexate commencement and strict follow up underscore fertility preservation and prevention of significant morbidity and mortality.

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