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Case Report

Ovarian-ectopic pregnancy: a rare case report

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ABSTRACT

Ovarian ectopic pregnancy (OEP), is one of the variants of the non-tubal ectopic pregnancy, which varies one in 7,000–16,000 deliveries, and its prevalence is 1-3% among ectopic pregnancy. OEP is a complication which occurs when implantation and embryo development happens outside of the uterus. Usually, 91% of OEP terminates with rupture before the end of 1st trimester and it can lead to pregnancy complications such as hemorrhage and hypovolemic shock. Clinical presentation of OEP is lower abdominal or pelvic pain, or both. In addition to this, other symptoms include nausea, vomiting, and constipation. It is one of the life-threatening conditions that cause maternal morbidity and mortality. In this case study we report a 20-year-old primigravida who presented to R. L. Jalappa hospitals emergency department with pain abdomen, with history of 2 months of amenorrhea, unaware of her last menstrual period, on examination her vitals were unstable and left iliac fossa tenderness noted on per abdomen examination, ultrasound showing ruptured ectopic pregnancy, patient was managed successfully through emergency exploratory laparotomy with unilateral oophorectomy.

Keywords: Ectopic, Pregnancy, Maternal, Laparotomy, Oophorectomy

INTRODUCTION

Ovarian ectopic pregnancy (OEP), is one of the variants of the non-tubal ectopic pregnancy, which varies one in 7,000–16,000 deliveries, and its prevalence is 1-3% among ectopic pregnancy. The incidence of OEP increases following the use of ovulation-inducing agents and also increased usage of assisted reproductive techniques and intrauterine device.[1,2]

OEP is a complication which occurs when implantation and embryo development happens outside of the uterus. When such ectopic pregnancy occurs in ovary, it is known as an OEP. The Spiegelberg criterion is used for diagnosing ovarian pregnancies. Usually, 91% of OEP terminates with rupture before the end of 1st trimester, 5.3% end in second trimester, and 3.7% end in the third trimester and it can lead to pregnancy complications such as hemorrhage and hypovolemic shock.[3]

CASE REPORT

A 20-year-old primigravida came with complaints of pain abdomen since 2days, non-radiating, no aggrevating or relieving factors and she had come with complaints of bleeding per vagina since 2 days not associated with passage of clots, her LMP was unknown, urine pregnancy test was done and shows positive. On arrival of the patient to the emergency department, general and systemic examination- spo2 98% on RA, HR-110 bpm, blood pressure 100/70 mmHg as following: as mentioned in Table 1.

On per abdomen examination, on palpation- soft, left iliac fossa tenderness present. Per speculum examination showed cervix and vagina healthy. Pervagina examination-left forniceal tenderness noted. Routine investigations were sent and reported as mentioned below from (Table 2). Blood group was B positive.

Table 1: General and systemic examination.

Variables	Values
SpO_2	98% on RA
HR (bpm)	110
Blood pressure	100/70
Temperature	37.2
Respiratory rate (cpm)	24

Table 2: Routine investigations.

Period	HB (gm%)	RBC (mil/ mm^3)	PCV %	WBC (th/ mm^3)	PLT (th/ mm^3)
Day-1	4.1	13.9	13.9	15.08	253
Day-7	8.8	6.8	22.4	10.7	302

Beta hCG was >1500 mIU/ml. Ultrasound abdomen and pelvis report showed left sided ruptured tubal ectopic pregnancy with inflammatory tubal mass with ascites. 2 pints PRBC blood products transfused. She underwent emergency exploratory laparotomy (Figure 1) and 3×4 cm of left ruptured ovarian ectopic noted. 300 ml of hemoperitoneu noted, left tubes healthy. Right sided ovary and tube healthy. Left sided oophorectomy was done and specimen was sent for histopathological examination. Histopathology showed features of OEP.

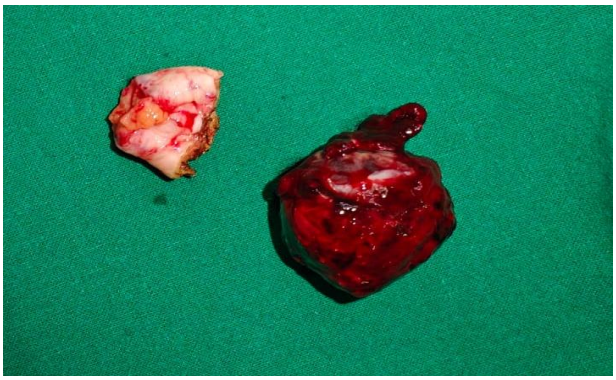

Figure 1: Exploratory laparotomy.

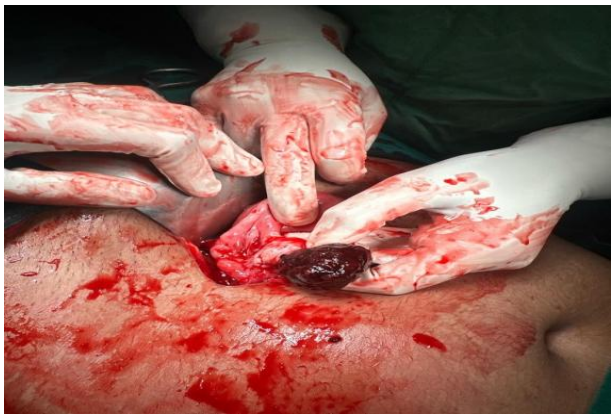

Figure 2: Right sided ovary and tube healthy.

DISCUSSION

OEP is a very rare form of ectopic pregnancies and it can be either primary or secondary to ruptured tubal pregnancy.[4] The mechanisms involved in the development of the OEP are fertilization which occurs normally and implantation in the ovary follows reflux of the conceptus from the tube and disturbances in the release of ovum may be responsible for the abnormal implantation. Ovarian pregnancy can be missed diagnosed with ruptured corpus luteum cyst in 75% of cases.[5,6] Chronic pelvic pain alone is the most frequent clinical symptoms of an ovarian gestation as in our patient, also an adnexal mass may be palpable on examination.[6,7] The diagnosis is often made at surgery and requires histological confirmation. A correct diagnosis of ovarian pregnancy during surgery is only possible in 28% of the cases, because it is difficult to differentiate from a hemorrhagic corpus luteum intraoperatively.[8] Some criteria are very suggestive for sonographic localization of ovarian pregnancy: a wide echogenic ring with an internal echolucent area on the ovarian surface; the presence of ovarian cortex, including corpus luteum or follicles around the mass; and the echogenicity of the ring usually greater than that of the ovary itself.[13] Three-dimensional ultrasound (3D) seems to make a difference in the differential diagnosis with corpus luteum cyst or hemorrhagic cyst.[9,10] Spigelberg criteria are historically used for intraoperative diagnosis: intact fallopian tube on the affected side, fetal sac must occupy the position of the ovary on the affected side, ovary connected to the uterus by ovarian ligament, ovarian tissue must be located in the sac wall, which is confirmed by histopathology.[11] Very few literatures are available about medical treatment with methotrexate, as likely as because ovarian pregnancy is diagnosed in emergency settings when surgical treatment represents the gold standard. Laparoscopy with conservative treatment is highly essential. Few surgical techniques were 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.[12,13] In rare cases, due to the advanced development of pregnancy, ovariectomy and oophorectomy may be necessary.[13]

CONCLUSION

Ovarian pregnancy is a rare entity, premature rupture can lead to hemoperitoneum and hypotension which is considered as one of the life-threatening gynecological emergencies. The management of ovarian ectopic is similar to tubal ectopic pregnancy. Maternal morbidity and mortality, however, depends on early diagnosis and definitive treatment of this condition.

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