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Case Report

Case report of ruptured ovarian ectopic pregnancy

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ABSTRACT

Ectopic pregnancy occurs very rarely with an incidence of 1.5% to 2% in all pregnancies and more commonly, in young highly fertile multiparous women using intrauterine device. Here, we presented a case of young multiparous lady who presented with irregular bleeding since the last 2 months. Ultrasound was done which showed a large right sided ovarian mass with free fluid in the abdomen. She was taken up for exploratory laparotomy followed by right oophorectomy after a verbal and written consent in view of ruptured corpus luteal cyst/ruptured ovarian ectopic pregnancy. Intraoperatively, a large right ruptured ovarian ectopic pregnancy was seen, which was also confirmed on histopathological examination.

Keywords: Ovarian ectopic pregnancy, Corpus luteal cyst, Laparotomy, Oophorectomy

INTRODUCTION

Ectopic pregnancy is defined as implantation of the trophoblastic tissue outside the uterine endometrium with an estimated incidence of 1.5% to 2% among all pregnancies.¹ It is a very risky and possibly a life threatening condition, being one of the most common causes of maternal mortality in the first trimester of pregnancy.² The most common site of ectopic pregnancy is tubal, with the incidence being 95% to 97%. The other sites are cervical, ovarian, peritoneal and caesarean/hysterotomy scars.

Ovarian ectopic pregnancy is a very rare entity, with an estimated incidence of 1/7000-1/40,000 live births and 0.5-3% of all ectopic gestations.³ Heartig estimated that ovarian pregnancy occurs in one in 25,000-40,000 pregnancies.⁴ Its frequency is 0.3-3.0 of all ectopic gestation, according to study by Valien et al.⁵ Ovarian ectopic is diagnosed using the Spielberg's criteria which was as follows: 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, confirmed by histopathology.

Unlike tubal pregnancies which holds a 15% chance of recurrence, there have been no case reports of a repeat ovarian pregnancy which indicates that a previous ovarian pregnancy may not be a risk factor for its recurrence.⁶

CASE REPORT

A 23 years old lady, married for 6 years, G3P2L2 at 5 weeks presented on 3 February 2022 with complaints of spotting per vaginum and intermittent lower abdominal pain since 3-4 days. Her UPT done at home was positive and she had taken over the counter medications for pain relief. As her pain did not subside, she got an ultrasound done which showed right sided ovarian mass and had come to CMC Ludhiana for further management. She had no complaints of syncopal attack or excessive bleeding or passage of fleshy mass per vaginum. On examination, she had mild pallor, her pulse was 104 /min and BP was 110/70 mmHg. On per abdominal examination, tenderness was

present on right iliac fossa, no guarding/rigidity. On per vaginal examination, uterus was bulky, right adnexal mass felt which could not be separately palpable from uterus, right adnexal and cervical motion tenderness was present, left adnexa was free and non tender. Ultrasound pelvis was done which showed uterus to be normal in size and shape. Endometrial thickness was 6.7 mm. No gestational sac was seen in the endometrium. A well-defined tubo-ovarian mass of 9×5.5 cm was noted with multiple septations with echogenic contents within it. A solid component of 4.6×4.4 cm with central cystic component and vascularity was noted within it. Left ovary was normal and no adnexal mass was seen on the left side. Minimal echogenic free fluid was noted in the POD.



Figure 1: Ultrasound image of right tubo-ovarian mass.

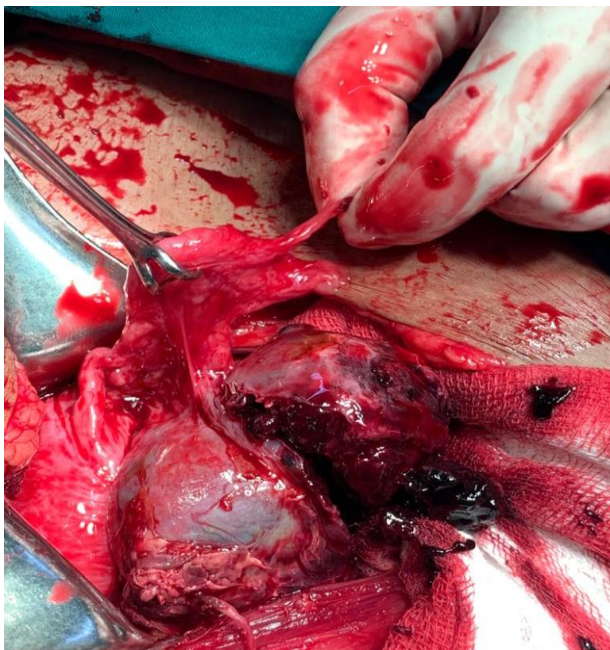


Figure 2: Ultrasound image showing right intact fallopian tube along with ruptured ovarian ectopic pregnancy.

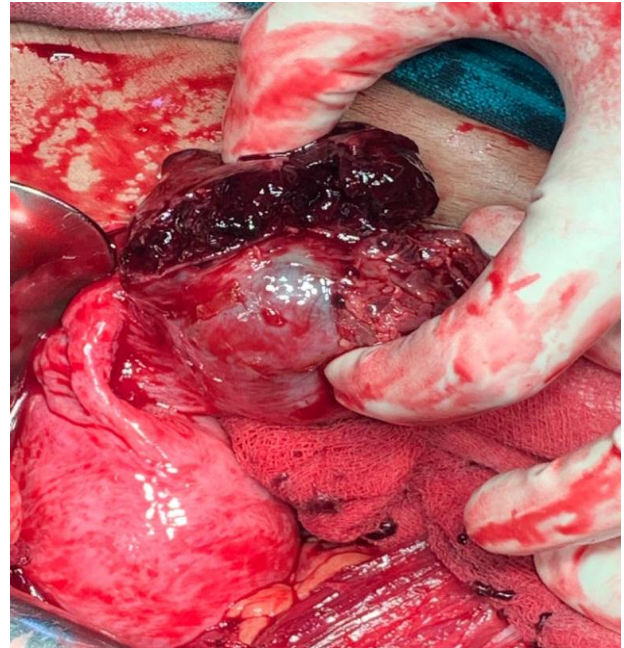


Figure 3: Ultrasound image of right ruptured ovarian ectopic pregnancy.

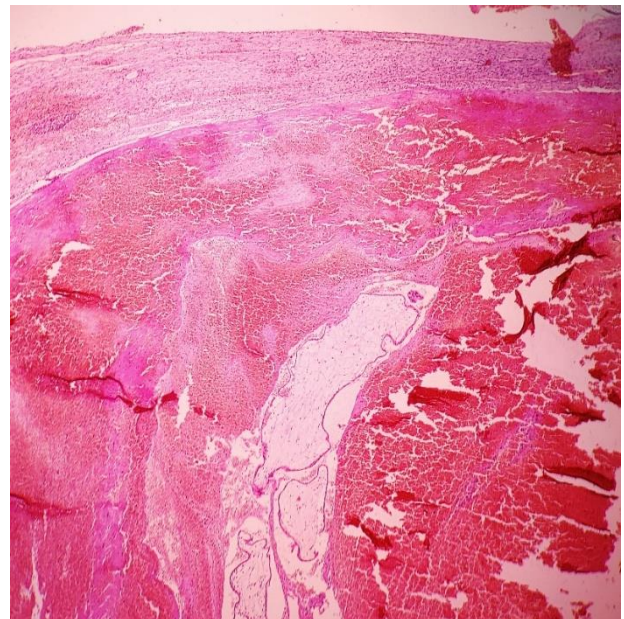


Figure 4: Histopathological image of trophoblastic villi and corpus luteum embedded in ovarian tissue.

She was then posted for exploratory laparotomy after informed consent. Intraoperatively, haemoperitoneum of 100 ml was noted. Right ovary was not separately visualized. Ruptured haemorrhagic ovarian mass of 7×5 cm was noted. Left ovary and bilateral fallopian tubes were normal and healthy. Adhesions were present between the pouch of Douglas and sigmoid colon. Right oophorectomy was done. Total blood loss was 150 ml. Her postoperative period was uneventful and she was discharged in a satisfactory condition on postoperative day 4.

Histopathological examination revealed right ovarian ectopic pregnancy with corpus luteum.

DISCUSSION

Primary ovarian pregnancy is one of the rarest types of extra-uterine pregnancy. With the advent of ultrasound imaging, ectopic pregnancies are now being diagnosed early, even before the patient becomes symptomatic. But this condition could be easily misdiagnosed as a corpus luteal cyst as both these conditions can have a similar ring of fire appearance and this can be seen in 75% of cases.^{7,8} Transvaginal ultrasound helped in diagnosing ectopic pregnancy better than transabdominal ultrasound and therefore helped in diagnosis prior to the development of signs and symptoms of ectopic pregnancy.⁹ With few exceptions, the initial diagnosis was made intraoperatively and the final diagnosis only on histopathological examination on the basis of the four Spielberg criteria.¹⁰

This condition could be managed medically or surgically, but management depended on the hemodynamic stability of the patient, size of the mass and also depended on whether it was ruptured or not. Medical management using methotrexate showed a success rate of >82%, with the beta HCG level between 10,000 and 14,999 mIU/ml, but according to the American society of reproductive medicine guidelines, a beta HCG level more than 5000 mIU was a relative contraindication to medical therapy.^{11,12} Partial ovariectomy by either laparotomy or laparoscopy was the surgical management.¹³

CONCLUSION

Ectopic pregnancies are on the rise recently, due to many reasons such as tubal surgeries, pelvic inflammatory diseases, genital tuberculosis and use of intrauterine contraceptive devices. Its action could be explained by altered tubal motility, thereby facilitating the implantation in the ovary. The use of intrauterine contraceptive device prevents uterine implantation, but does not provide protection against ovarian implantation. Although ultrasound can differentiate between tubal and ovarian ectopic in the unruptured state, it cannot be differentiated in ruptured cases and may mimic tubo-ovarian mass. The priority of treatment should be to prevent mortality but if possible, fertility should be preserved through conservative surgical methods or medical management of selective patients. As in our patient a tubo-ovarian mass along with haemoperitoneum was diagnosed using ultrasound, she was immediately taken up for laparotomy. Intraoperatively the ovary could not be separately visualized from the mass, hence oophorectomy had to be done. It was noted that both the tubes were unaffected and the ovary on the contralateral side was healthy and normal, thus establishing a provisional diagnosis of ruptured

ovarian ectopic pregnancy which was later confirmed on histopathology, as it showed presence of chorionic villi and trophoblastic tissue on the ovary along with a corpus luteal cyst, which again is a rare finding.

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Ethical approval: Not required

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