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Case Report

A rare case of large ovarian ectopic pregnancy managed by fertility preserving surgery

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ABSTRACT

Ectopic implantation of fertilized egg in the ovary is rare. Risk factors are similar to those for tubal pregnancies. Presenting complaints and findings mirror those for tubal ectopic pregnancy. Although the ovary can accommodate the expanding ovarian pregnancy more easily than fallopian tube, rupture at an early stage is the usual consequence. Diagnosis may not be made until surgery or by the pathologist as an early ovarian pregnancy may be mimic haemorrhagic corpus luteum. Use of transvaginal sonography has resulted in a more frequent diagnosis of unruptured ovarian pregnancy. Sonographically, an internal anechoic area is surrounded by wide echogenic ring, which in turn is surrounded by ovarian cortex is suspicious of ovarian ectopic. Diagnosis of ovarian pregnancy has a specific criterion outlined by Spiegelberg in 1878. Treatment has been surgical for almost all known ovarian ectopic pregnancies. Small lesions may be managed by ovarian wedge resection or cystectomy, whereas larger lesions require oophorectomy. In a few cases of unruptured small ovarian ectopics, have been managed by methotrexate therapy with successful outcome. Here we presented a case of primigravida having large ovarian ectopic successfully managed by excising ectopic pregnancy alone.

Keywords: Ovary, Ectopic pregnancy, Primigravida, Laparotomy

INTRODUCTION

Ectopic implantation of fertilized egg in the ovary is rare. Ovarian ectopic pregnancy accounts for 3% of overall ectopic pregnancies.[1] Risk factors are similar to those for tubal pregnancies.

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CASE REPORT

22-year-old female came to OBGY casualty with one and half months of amenorrhea and acute abdominal pain which was continuous and localized to right iliac fossa. Patient was married in the last one year and her menstrual cycles were otherwise regular. Patient had no nausea or bowel or bladder complaints. There was no significant past history of medical illness or any surgery. She was hemodynamically stable. Patient was not using any contraception since she was eager to bear a child. Patient was admitted and subjected to investigations. Clinically diagnosis was ruptured ectopic pregnancy.

Her urine pregnancy test was done which was positive. Transvaginal sonography showed a well-defined iso-

echoic lesion measuring 5.3 cm by 5.2 cm in right adnexal region, just adjacent and inseparable from right ovary with central G-sac like structure of 2.9 by 2.2 by 1.8 cm. No yolk sac or fetal pole seen. Lesion showed low resistance diastolic flow with probe tenderness There was mild free fluid in pouch of Douglas. Uterus was normal in size and endometrial thickness was 12 mm. Diagnosis was right sided rupture ectopic pregnancy probably tubal or ovarian ectopic.

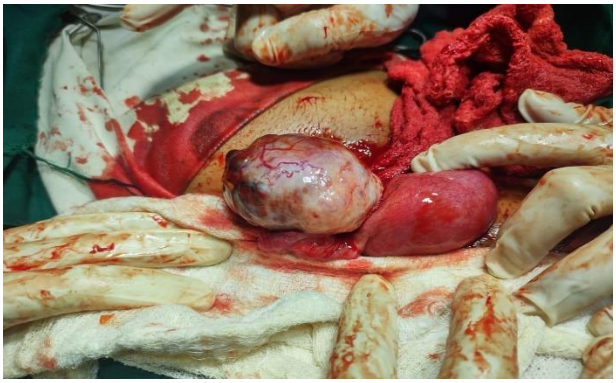

Figure 1: Intraoperative picture of right ovarian ectopic pregnancy with ipsilateral normal fallopian tube.

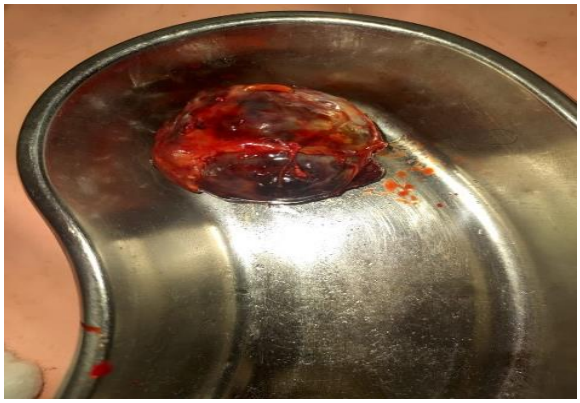

Figure 2: Excised right ovarian ectopic pregnancy.

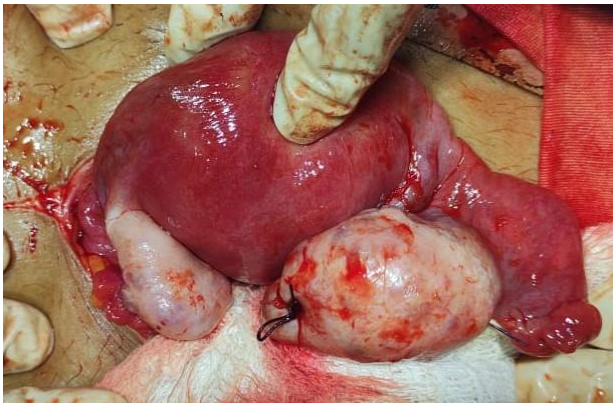

Figure 3: Right ovary after excision of ectopic pregnancy and reconstruction using 2-0 polygalactin sutures.

Since the size of ectopic was large and b Hcg was 10,616 mIu/ml which was corresponding to 6-7 weeks gestation, patient had all clinical signs of impending rupture and so was taken for emergency laparotomy. Intraoperatively the right ovary had a large tense hemorrhagic mass of around 6 cm by 6 cm which was probably ectopic pregnancy. Left ovary was normal. Both fallopian tubes were normal. Uterus was anteverted and normal in size. There was around 100 ml of hemoperitoneum in pouch of Douglas. Right unruptured ovarian ectopic pregnancy on verge of impending rupture was diagnosed. Entire ectopic mass lesion was gently excised and rest ovary was reconstructed using intermittent sutures using 2-0 delayed absorbable suture. Right ovary was conserved after achieving complete hemostasis. Abdomen was closed after thorough saline wash. Surgery was uneventful and patient was discharged on seventh postoperative day after suture removal. Histopathological examination confirmed ovarian ectopic pregnancy.

DISCUSSION

The exact aetiology and pathogenesis of ovarian ectopic pregnancy are still unknown. It is hypothesized that due to ovulatory dysfunction, the egg is fertilized while still within the follicle. Following fertilization and fallopian tube transit, the blastocyst normally implants in the endometrial lining of the uterine cavity. Most ovarian ectopic pregnancies seem to be secondary due to the reflux of a fertilized ovum from the fallopian tube to the ovary.

There seemed to be an especially strong association of ovarian pregnancies with intrauterine devices. The theory behind this is that although the IUD provides protection from intrauterine implantation, it does not prevent ovarian implantation. Ovarian pregnancies are rare and Hertig estimated that ovarian pregnancy occurred in one in 25,000 to 40,000 pregnancies. It is diagnosed when 4 clinical criteria outlined by Spiegelberg (1878) are met: (1) the ipsilateral tube is intact and distinct from ovary; (2) the ectopic pregnancy occupies the ovary; (3) the ectopic pregnancy is connected by utero-ovarian ligament to the uterus; (4) ovarian tissue can be demonstrated histologically amid the placental tissue.

The risk factors are similar to those of tubal pregnancies, but ART or IUD failure seems to be disproportionately associated. Ovarian ectopic pregnancies rupture early and growing to 6 weeks gestation is still very rare. The diagnosis is often made during surgery for suspected ectopic and requires histological confirmation. A correct diagnosis of ovarian pregnancy during surgery is possible in 28% of cases, because it is difficult to differentiate it from a hemorrhagic corpus luteum. A high index of suspicion based upon combination of presenting complaints, period of gestation, Transvaginal scan, serum beta HcG levels is needed for early and correct diagnosis.[2] Ovarian ectopic pregnancies usually rupture early and rarely progress beyond 6 weeks. Rupture results in massive hemoperitoneum since ovary is a highly vascular

organ. If not diagnosed early, rupture can result in significant patient morbidity. Treatment is usually surgical excision of ectopic sac or at times oophorectomy either by laparoscopy or laparotomy as per the availability of resources and surgical expertise.[3] Sometimes in case of very early ectopics, medical management using single dose of injection methotrexate has also been tried with successful outcome.[4] In our patient, the size of ovarian ectopic was very large (6-7 weeks) but since she was a primigravida we wanted to conserve the ovary. We excised only the ectopic sac and could successfully conserve the affected ovary. Unilateral oophorectomy reduced fertility and chances of conception and so all efforts should be made to conserve ovary as far as possible.

CONCLUSION

Ovarian ectopic pregnancies are one of the rarest ectopic pregnancies. Diagnosis is difficult since clinical presentation is similar to tubal ectopic pregnancy. A combination of good patient history, clinical examination and transvaginal scan can help in accurate diagnosis. With good surgical expertise it is possible to only remove the ectopic pregnancy and to conserve ovary and thereby preserve fertility in young woman.

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