

Case of Ovarian Tumor with Concurrent Heterotopic Pregnancy

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Introduction

Most common ovarian masses encountered during pregnancy are functional cysts of ovary and luteomas being unique to pregnancy. The other ovarian masses in order are benign cystic teratomas, serous cystadenoma, paraovarian cyst, mucinous cystadenoma and endometrioma.² Whenever malignancy is suspected in ovarian tumor during pregnancy, it is generally a germ cell tumour or borderline epithelial ovarian tumour.^{4,5} These are generally of low stage and low grade and consequently prognosis is good.^{4,5} The incidence of surgery during pregnancy is 1:1312.2 . Heterotopic pregnancy is extremely rare and ovarian tumor in a heterotopic pregnancy is extremely rare. Cases of ectopic pregnancy are reported in a case of concurrent teratomas, cystadenomas. However heterotopic pregnancy is not much reported.

Case Presentation

A 35 year old female, G2P2L1 with 7 weeks of gestation presented in casualty with chief complaints of acute pain abdomen on and off since morning. The patient described pain over whole of abdomen, with no aggravating or relieving factors. There was no history of nausea, vomiting, no h/o fever, syncopal attack, bladder or bowel complaints. There was history of bleeding per vaginum. Her previous menstrual cycles were normal. Her obstetric history was uneventful. All previous issues were alive and healthy. There was no significant past, personal or surgical history. On examination she was conscious and coherent. Her BP was 100/84 mm of Hg, pulse rate was 110/minute. The patient was taken for ultra sonography Trans abdominal and transvaginal Sonography showed live intrauterine pregnancy with CRL 1.00 cm corresponding to 7 weeks 1 day. There was a heterogeneous mass in left adnexa measuring approximately 4.3x3.9 cm. The mass showed Gestational sac measuring approximately 0.2 cm corresponding to 4 weeks left ovary was visualised separately. Right adnexa showed complex multicystic lesion measuring approximately 6.1x4.9 cm It showed septal vascularity However no obvious solid areas were noted within. Right ovary was not separately visualised. Preliminary investigations were done and patient was taken up for laparotomy in view of bilateral adnexal masses. Peroperatively gross morphology was: Right ovarian complex cystic mass ovarian cystectomy was done. Other side salpingostomy was done

Patient's post-operative period was uneventful. Histopathology report came out to be serous cystadenoma and left adnexal mass was ectopic pregnancy.

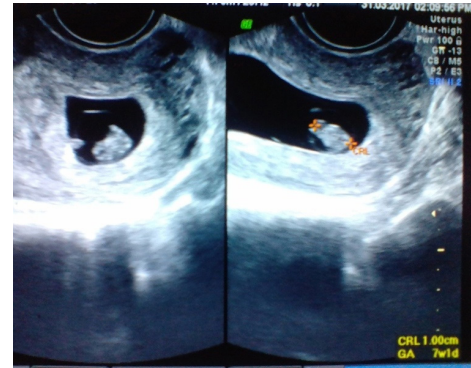


Figure 1: Trans vaginal Sonography shows intrauterine pregnancy with Fetal pole.



Figure 2: Trans vaginal Sonography shows intrauterine pregnancy with Fetal pole.

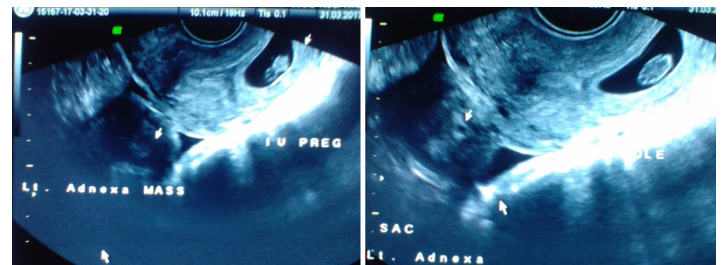


Figure 3: Trans vaginal Sonography shows heterotopic pregnancy, intrauterine pregnancy and left adnexal pregnancy.



Figure 4: Left adnexal mass with gestational sac. Doppler shows vascularity of left adnexal mass.

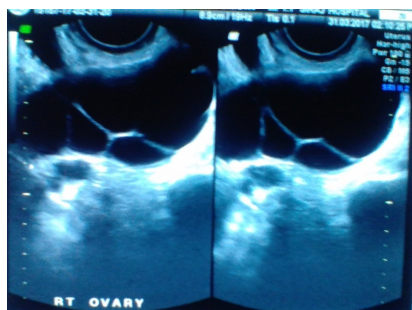


Figure 5: Right ovarian complex multicystic mass.

Discussion

Frequency of ovarian tumours being coexistent with pregnancy is 1:10007 and among these frequencies of being malignant is approximately 1:15000 to 1:32000 pregnancies. Most common ovarian masses encountered during pregnancy are functional cysts of ovary. The other ovarian masses in order are benign cystic teratomas, serous cyst adenomas, paraovarian cysts, mucinous cystadenomas and endometriomas. Benign serous tumours are unilocular (have one lobe); however if very large may be multilocular, contain clear fluid and have a smooth lining composed of columnar epithelial cells with cilia. On gross examination, the serous tumor may present as either a cystic lesion in which the papillary epithelium is contained within a few fibrous walled cysts, or the papillary projections may be away from the surface epithelium. They comprise 50% of all ovarian tumors. Sixty percent are benign (cystadenoma), 10% are border line and 30% are malignant (cystadenocarcinoma). The benign serous tumors are most common in the third to fifth decades of life and may be 20-30 cm in size. Giant cysts are found in less than 1% of the cases of ovarian cysts with pregnancy. Torsion is the most common and serious complication of benign ovarian cysts during pregnancy. The other complications which might occur are rupture of cyst, infection, malignancy, impaction of cyst in pelvis, obstructed labour and malpresentations of fetus.

On review of literature the studies are lacking to guide proper management of such cases. Some studies favor surgical intervention for fear of above stated complications while others recommend conservative management because most of the cysts found during pregnancy are corpus luteal cysts and they regress spontaneously by 16 weeks of gestation. A heterotopic gestation is difficult to diagnose clinically. Typically, laparotomy is performed because of tubal pregnancy. Ultrasound examination can nearly always show gestational products in uterus.

The incidence was originally estimated on theoretical basis to be 1 in 30,000 pregnancies. However, more recent data indicate that the rate is higher due to assisted reproduction and is approximately 1 in 7000 overall and as high as 1 in 900 with ovulation induction. The increased incidence of multiple pregnancy with ovulation induction and IVF increases the risk of both ectopic and heterotopic gestation.

Heterotopic pregnancy can have various presentations. It should be considered more likely (a) after assisted reproduction techniques, (b) with persistent or rising chorionic gonadotropin levels after dilatation and curettage for an induced/spontaneous abortion, (c) when the uterine fundus is larger than for menstrual dates, (d) when more than one corpus luteum is present in a natural conception, and (e) when vaginal bleeding is absent in the presence of signs and symptoms of ectopic gestation.

Intrauterine gestation with hemorrhagic corpus luteum can simulate heterotopic/ectopic gestation both clinically and on ultrasound. Other surgical conditions of acute abdomen can also simulate heterotopic gestation clinically and hence the difficulty in clinical diagnosis. The treatment of a heterotopic pregnancy is laparoscopy/laparotomy for the tubal pregnancy.

Conclusion

Ovarian tumors are rare in pregnancy and most common are functional cysts of pregnancy. A spontaneous heterotopic pregnancy can occur in patients who have no known predisposing factor. Early diagnosis has made this disorder amenable to appropriate management. The high-resolution transvaginal sonography is very helpful in the diagnosis of this condition. A spontaneous heterotopic pregnancy can occur in patients who have no known predisposing factor. Early diagnosis has made this disorder amenable to appropriate management. The high-resolution transvaginal sonography is very helpful in the diagnosis of this condition.

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