

Primary Ovarian Pregnancy

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Abstract: Ovarian pregnancy is one of the rarest form of ectopic pregnancies. The classic symptoms of ectopic pregnancy may not be present in ovarian pregnancy. Preoperative diagnosis of ovarian pregnancy is still confusing. Delay in diagnosis may lead to increase maternal morbidity and mortality. We present here a case of ovarian pregnancy presenting with acute abdominal pain with no menstrual irregularities. Transabdominal ultrasonography failed to make the diagnosis of ovarian pregnancy. The case was successfully managed by surgery and diagnosis of ovarian pregnancy was confirmed later by histopathological report.

KeyWords: Histopathology, Ovarian Pregnancy, Transabdominal Ultrasound.

Introductions

Primary ovarian pregnancy is a rare form of ectopic pregnancy, accounting for 0.15–3% of ectopic pregnancy.¹ The common presenting complaints are pain abdomen, amenorrhoea and vaginal bleeding. The diagnosis of an ovarian ectopic pregnancy is seldom made before surgery.² Transvaginal ultrasound is often helpful to make the diagnosis of unruptured ovarian pregnancy. Intraoperatively, ovarian pregnancy may be confused with bleeding corpus luteum with intrauterine pregnancy. The final diagnosis is made by Histopathological examination.

Case Report

A 30 year old lady presented in emergency department with complaints of lower abdomen pain since 3 days, nausea on and off and two episode of vomiting. She had no history of amenorrhoea. Her menstrual cycle was regular. She had full term normal vaginal delivery 10 years back. She gave history of using Inj Medroxyprogesterone for 5 years and left 2 years back. On examination: Vitals were stable; Pallor was present. Per abdominal examination showed tenderness over whole abdomen. Per speculum examination showed cervix healthy with normal discharge. Per vaginal examination showed Uterus size difficult to assess due to tenderness, cervical motion tenderness was present,

but no any mass was palpable through the fornix. On investigation, urine pregnancy test was positive; Hb %8.4gm/dl, Platelet count 2.4 lakh and the blood group was O positive. Provisional diagnosis of ruptured ectopic pregnancy was made. Ultrasound showed no gestational sac inside the uterus, right adnexal mass of size 6.3×4.6cm fluid in Pouch of Douglas and Morrison pouch. Emergency laparotomy was done. Intraoperative findings were hemoperitonium around 400ml; uterus normal size, both fallopian tubes were normal; Right ovary was enlarged with bluish lesion of 3×3cm with rent of 2×2cm with oozing of blood. Wedge resection of right ovary was performed and sent for histopathological examination. Simple cyst of 2×2cm noted on Left ovary and ruptured during manipulation so repair was done for active bleeding. Intraoperative diagnosis of Ruptured Right Corpus luteal cyst with early intrauterine pregnancy/ Right ovarian pregnancy as differential diagnosis. Serum β -hcg was sent (β -Hcg -987.89mIU/ml). On first postoperative day, Haematocrit (Hct) was 22, so two pint of whole blood was transfused and Hct raised to 30%. She recovered well and was discharged on third post operative day with advise to follow up after 1 week with serum β -Hcg level. She came for follow up on tenth post-op day with serum β -Hcg (β -Hcg: 11.0mIU/ml) and histopathology report.

Histopathological report showed gross findings (received multiple pieces of clots altogether measuring 6.5×6.0×3.5cm) and microscopic findings ovarian stroma with multiple chorionic villi lined by trophoblastic cells which is consistent with ovarian pregnancy) as shown in figure 1



Figure 1. Histopathology slide showing Ovarian stroma with multiple chorionic villi lined by Trophoblastic cells.

Thus intraoperative findings and histopathological findings confirmed the diagnosis of ovarian pregnancy as the criteria described by Spiegelberg.⁴

Discussions

Ovarian pregnancy is a rare form of ectopic pregnancy, accounting for 0.15–3% of ectopic pregnancy.¹ First case being reported by St. Maurice in 1682.³ The Spiegelberg (4) had defined the diagnostic criteria of ovarian pregnancy. The presenting complaints of ovarian pregnancy such as lower abdomen pain, vaginal bleeding and amenorrhoea are similar with tubal pregnancy, hence, the diagnosis is seldom made before surgery.³ Transvaginal ultrasound is often helpful to make the diagnosis, but ovarian pregnancy may be confused with hemorrhagic corpus luteum or ovarian cyst. Final diagnosis is usually made by histopathological examination. It has been reported that ovarian pregnancy is diagnosed as a hemorrhagic corpus luteum in two-thirds of cases.⁸

Gon S, et al (9) reported two similar cases. In one

case, transabdominal ultrasound failed to diagnose the case of ovarian pregnancy and in another case, transvaginal ultrasound revealed diagnosis of an ovarian pregnancy and was later confirmed by histopathological examination in both case. In our case also, transabdominal ultrasound suggested the diagnosis of ruptured tubal pregnancy and later confirmed by histopathological examination.

Choice of treatment in ovarian pregnancy is either conservative or surgical. In case of unruptured ovarian pregnancy, single dose of Inj Methotrexate is given. Mittal et al had reported the successful treatment of an ovarian pregnancy with methotrexate.¹⁰ However, the preferred mode of treatment is oophorectomy by either laparotomy or laparoscopy.⁵ During laparotomy or laparoscopy, conservative surgery such as cystectomy or wedge resection can be a choice in case of small lesion.

In our case, due to clinical features and transabdominal findings (right adnexal mass of size 6.3× 4.6cm was seen with fluid in Pouch of Douglas and Morrison pouch), we performed emergency laparotomy with wedge resection of right ovary. Currently, laparoscopic surgery is the treatment of choice.⁶ although ovarian pregnancy is a rare event; it is one of the important differential diagnosis in a female presenting with acute abdomen. No case of repeat ovarian pregnancy has been reported in contrast to approximately 15% recurrent tubal pregnancy.⁷

Conclusions

Ovarian pregnancy is a rare form of ectopic pregnancy and pre-operative diagnosis is often difficult. With the help of transvaginal ultrasound, diagnosis can be made early, leading to conservative treatment and preservative surgery. Delay in diagnosis may increase the maternal morbidity and mortality so, awareness of this rare condition is important.

Conflict of interests: None Declared

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