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Ruptured Ovarian Pregnancy: Unusual Presentation of Unusual Diagnosis- A Case Report.

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Abstract

High index of suspicion is essential for the diagnosis of ectopic pregnancy and should be considered in any female of reproductive age presenting with acute abdomen.

Keywords: Ovary, Ovarian Pregnancy.

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Introduction

Primary ovarian pregnancy is the implantation of developing embryo inside the ovary. Ovarian pregnancy is one of the rarest forms of ectopic pregnancy with an incidence of 1: 60,000. It constitutes 3% of all ectopic gestation and has a rising incidence following the use of assisted reproductive technologies. We report a rare case of ovarian ectopic pregnancy which ruptured before first missed period and an adnexal mass was conspicuous by its absence.

Case Report

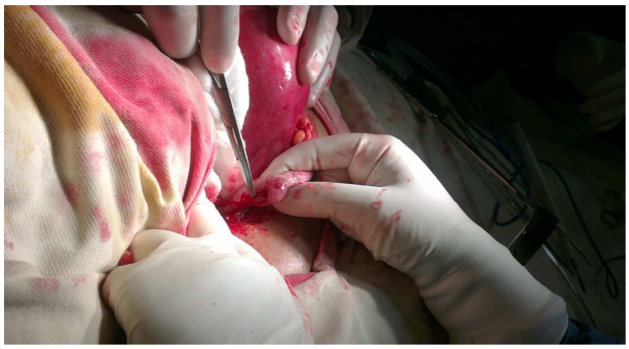

Figure 1: Intraoperative picture showing ruptured ovary with bleeding at site of rupture. Uterus was enlarged with a fundal fibroid.

A 28 year old woman had acute pain abdomen on day 22 of her menstrual period. She was admitted in a nearby hospital where ultasonography of pelvis and abdomen was done. It showed loculated fluid collection in pelvis with a fundal fibroid in uterus with normal fallopian tubes and ovaries. Ectopic pregnancy was not considered in the differential diagnoses. Patient continued to have dull aching pain and remained hemodynamically stable. CT scan was done to establish a diagnosis which also showed fibroid uterus without gestational sac and bilaterally normal tubes and ovaries, only positive finding being the presence of free fluid in pelvis and abdomen. After 3 days of conservative management and without a diagnosis, patient was referred to our centre. At the time of admission, patient had a pulse rate of 90/min, and BP of 100/60 mmHg. Pallor was present and hemoglobin was 8 gm%. She had tenderness in lower abdomen and on per vaginum examination fullness in right fornix and cervical motion tenderness were present. Urine pregnancy test was done which was faintly positive. Patient was taken up for laparotomy with the pre-op diagnosis of ruptured ectopic pregnancy. Intraoperatively, hemoperitoneum of 1 liter was present and bilateral fallopian tubes were normal. Right ovary was found ruptured with continued bleeding from ovary. Right oophorectomy was done. Patient was discharged on day 3 post op. Histopathology confirmed the diagnosis of ovarian pregnancy with ovarian stroma showing chorionic villi and trophoblastic cells.

Discussion

Primary ovarian pregnancy was first reported by St. Maurice in 1689. Spigelberg established criteria for diagnosis of ovarian pregnancy which are:

1. Fallopian tube must be intact with its fimbriae
2. Gestational sac must occupy the position of the ovary.
3. Ovary must be connected to uterus with ovarian ligament
4. Ovarian tissue must be present in the specimen attached to gestational sac.

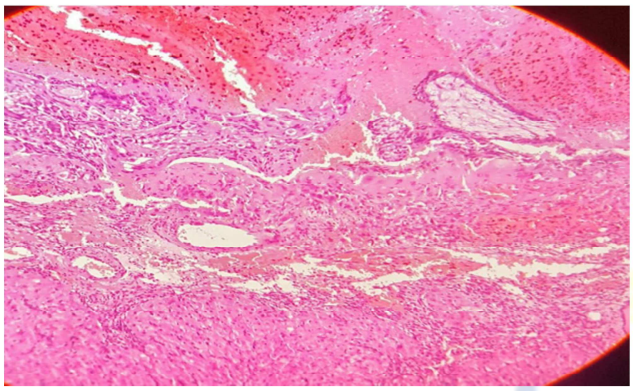

Figure 2: High Power View showing corpus luteal cells on lower side and chorionic villi and trophoblastic cells on upper side.

Risk factors for ovarian ectopic pregnancy are not the same as tubal ectopic pregnancies although there are some common factors.

Current use of intrauterine contraceptive device is a risk factor associated with distal tubal and ovarian pregnancies. Assisted reproductive technologies are associated with increased ectopic gestation, tubal as well as ovarian. Empty follicle syndrome where no oocytes are aspirated from mature ovarian follicle after controlled ovarian hyperstimulation is especially associated with ovarian pregnancies.[1] Thickening of tunica albugenia in inflammatory pelvic disease has been postulated to interfere with release of ovum and thus cause ovarian pregnancies.

Diagnosis of unruptured ectopic gestation is frequently missed on ultrasongraphy or confused with tubal ectopic gestation. Ruptured ovarian pregnacy presents like ruptured tubal ectopic gestation or a ruptured corpus luteal cyst. Ectopic pregnancy has been named as masquerader and ovarian pregnancy may also have atypical or unique presentations. Diagnosis is usually suspected intraoperatively, although, even at surgery it can be confused with a ruptured corpus luteum. Gestational age for diagnosis of ectopic pregnancies varies from 4 weeks to 9 weeks,[2] although ovarian pregnancies continuing till term have been reported. Our patient presented on day 22 of her menstrual cycle with rupture.

Authors would like to make a comment on presentation of ectopic pregnancies, tubal ectopic pregnancies included, since ruptured ectopic pregnancies at different locations may have overlapping presenting features. The classical triad of abdominal pain, vaginal bleeding and amenorrhea is present in only 48%.[3] Of these three features, our patient had abdominal pain while the other two features were not present. About 40-50% of the patients with ectopic pregnancy present with vaginal bleeding. Adnexal mass is seen in 50% patients. Abdominal tenderness is seen in 75% patients. Relying on traditional diagnostic triad is a recipe for misdiagnosis and high index of suspicion is essential for diagnosis of ectopic gestation.

Unruptured ovarian pregnancy can be managed with methotrexate or conservative laparoscopic surgery,[4] where only gestational sac can be removed or wedge resection can be done. For ruptured ovarian pregnancy, surgery remains the mainstay of treatment. Operative laparoscopy has been described but requires advanced laparoscopic skill. Either a wedge resection or oophorectomy may be done depending on condition of the ovary. Oophorectomy was done in our patient because of increased vascularity.

Future fertility after ovarian pregnancy remains unmodified and there has been no case report of recurrent ovarian pregnancy to be best of our knowledge.

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