

Ovarian Pregnancy Following Post-Coital Contraception – A Rare Case Report.



Medical Science

KEYWORDS : Ovarian pregnancy, Ectopic pregnancy, Progesterone only post-coital contraception.

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ABSTRACT

Ovarian pregnancy is one of the rarest ectopic pregnancy located in the ovary with incidence of 0.15-3%. The most common reason of ovarian pregnancy is when the mature egg cell is not released or picked-up at ovulation, and also when the fertilization occurs within the ovary where the fertilized ovum gets implanted. There are multiple postulations for the cause of ovarian pregnancy, like use of intrauterine contraceptive devices, patients undergoing invitro fertilisation therapy, use of emergency contraceptive pills and so on. Here, we report a case of ovarian pregnancy following intake of progesterone only post-coital contraception in a 25-years nulliparous lady. Ovarian pregnancy is a rare entity with the incidence of about 0.15-3%. Clinicians should always be aware of the fact that failure of emergency contraceptive measures particularly use of progesterone only pill can lead to an ectopic gestation.

INTRODUCTION

Ovarian pregnancy is one of the rarest kinds of ectopic pregnancy located in the ovary. Its incidence is approximately 0.15-3%. The most common reason of ovarian pregnancy is when the mature egg cell is not released or picked-up at ovulation, and also when the fertilization occurs within the ovary where the fertilized ovum gets implanted. Ovarian pregnancy usually does not extend beyond first four weeks and eventually ruptures causing severe intraperitoneal hemorrhage. Also, ovum which fertilizes outside the ovary may get implanted on the ovarian surface due to decidual reaction or endometriosis. Spiegelberg criteria is used for the diagnosis of ovarian pregnancy. The following criterion differentiates ovarian from other ectopic pregnancies:

1. The gestational sac is located in the region of the ovary.
2. The ectopic pregnancy is attached to the uterus by the ovarian ligament.
3. Ovarian tissue in the wall of the gestational sac is histopathologically confirmed.
4. The fallopian tube on the involved side is intact.

Ovarian pregnancy rarely goes beyond first four weeks and it usually ruptures leading to severe intraperitoneal hemorrhage. The etiology of ovarian pregnancy is the use of intrauterine contraceptive devices, patients of invitro fertilization therapy, use of emergency contraceptive pills and so on. Here, we report a case of ruptured ovarian pregnancy misdiagnosed as tubal ectopic pregnancy following intake of progesterone only post-coital contraception in a 25-years nulliparous lady.

CASE REPORT

A 25 years nulliparous lady presented with the chief complaints of acute onset light bleeding per vaginum associated with pain in left lower abdomen for last one day. She was brought to the gynecology and obstetrics emergency where general examination revealed stable vitals (pulse 90/min, regular, BP 120/70 mm Hg) with gross pallor. She gave history of 6 weeks of amenorrhea with previous regular menstrual cycles and intake of progesterone only post-coital contraceptive pills following unprotected

intercourse 6 weeks back. She was married for 6 months. There was no history suggestive of pelvic inflammatory disease and abdominal or pelvic surgery. Abdomen was mildly distended with tenderness mainly located in the lower abdomen. On speculum examination, small amount of blood in the vagina was present and cervical os was closed. On bimanual examination, uterine size could not be delineated, left fornix – tender and full, right fornix- free, pouch of Douglas – full, cervical motion tenderness was absent. Urine pregnancy test was positive. An urgent ultrasonography was done which revealed free fluid in peritoneal cavity and left adnexal mass which measured 4.5 × 5.5 cm with empty uterine cavity. Blood was sent immediately for grouping, cross matching and complete hemogram. A provisional diagnosis of ruptured left sided tubal pregnancy was made and she was prepared for emergency diagnostic cum therapeutic laparoscopic procedure followed by dilatation and endometrial sampling by curettage. During laparoscopy, approximately 800 ml of blood with clots were evacuated from peritoneal cavity. Intraoperative findings revealed uterus – just bulky, both tubes – healthy and free, right ovary – healthy. Left ovary revealed ruptured corpus luteal cyst with ongoing bleeding. Bleeding area was excised and hemostasis achieved with bipolar cautery. Both specimens – ovarian as well as endometrial tissue were sent for histopathology. Histopathology report revealed ovarian ectopic pregnancy (ovarian tissue with presence of chorionic villi admixed with blood clots and corpus luteum) (figure 1) and features suggestive of secretory endometrium (endometrial glands lying on an edematous and focally decidualized stroma with focal Arias – Stella reaction) (figure 2). The post-operative period was uneventful and patient required no blood transfusion. She was discharged after 2 days.

Discussion

An ectopic pregnancy is one in which the fertilized ovum is implanted and develops outside the normal endometrial cavity. The incidence of ectopic pregnancies is increasing worldwide. Among the various sites of ectopic pregnancy, the ovarian ectopic pregnancy is a rare entity with an incidence of approximately 0.15-3% [1]. The predisposing risk factors for ovarian ectopic pregnancy are usually chronic pelvic inflammatory disease, pelvic endometriosis, previous ectopic pregnancy, contraception failure, embryo transfer and [2]. In our case, the probable etiology was use of progesterone only post-coital con-

trapection. There are various methods of emergency contraception with its advantages and side effects [3]. There is increased risk of ectopic pregnancy with progestogen- only pills compared to other contraceptive methods which may be attributed to its mechanism of action. A progesterone-only pill leads to alteration of tubal motility and hampers the ciliary movement of fallopian tube and slows down the migration of fertilized ovum into the tube [4]. There are only few reported cases of ectopic gestation following failure of these pills till date [5]. Ovarian pregnancy is encountered and hence diagnosed accidentally mostly during operation, reason being similarities in presentation between tubal pregnancy or, ruptured corpus luteum and the ovarian pregnancy and hence this pose a real challenge for a proper clinical preoperative diagnosis of this entity [6]. Our case was also misdiagnosed as ruptured tubal ectopic preoperatively. Prompt diagnosis can avoid multiple consequences of this pregnancy like profuse hemorrhage and emergency surgical interventions [7]. Transvaginal ultrasonography has evolved as a tool of immense importance in diagnosing unruptured ovarian pregnancy where an early diagnosis may allow for a safer goal directed medical approach [8]. In our case medical management with methotrexate was not possible due to late diagnosis with presence of hemoperitoneum.

Laparotomy or sometimes laparoscopy is the usual preferred surgical approach in cases of ruptured ectopic with hemoperitoneum [9]. We however, went for laparoscopy with preservation of patient's ovary despite the presence of hemoperitoneum since the patient's vitals were stable.

CONCLUSION

Ovarian pregnancy is a rare entity with an approximate overall incidence of about 0.15-3% encountered in an emergency obstetrical practice. Various etiologies must be kept in mind, like the use of intrauterine contraceptive devices, patients undergoing invitro fertilization therapy, use of emergency contraceptive pills and so on. Obstetricians should always be aware of the fact that failure of emergency contraceptive measures particularly use of progesterone only pill can lead to an ectopic pregnancy. Thus, it is recommended to educate all women and make them aware regarding use of emergency contraceptives and the need for a regular close follow up to avoid the risks and complication of this type of ectopic gestation.

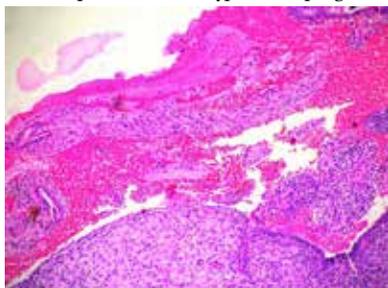


Figure 1
Photograph shows ovarian tissue with presence of chorionic villi admixed with blood clots and corpus luteum.

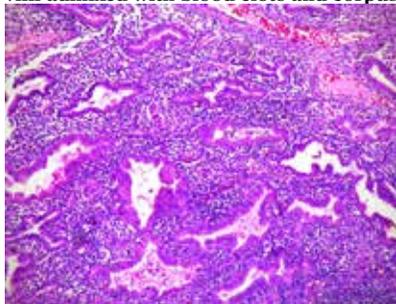


Figure 2

Photograph shows secretory endometrial glands lying on an edematous and focally decidualized stroma.

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