

Fetus in Ovary, Balloon in Uterus: A Serious Missed Diagnosis

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ABSTRACT

Ovarian ectopic pregnancy is one of the non-tubal ectopic pregnancies. It is a very rare, with an estimated incidence of 1/7000-1/40,000 live births and 0.5-3% of all ectopic Pregnancies. In primary ovarian pregnancy, ovum is fertilized within the follicle itself before being released. Spiegelberg criteria for the diagnosis of ovarian pregnancy are Tube on the involved site should be intact, Gestational sac has to be located in the ovary, The ectopic pregnancy has to be connected to the uterus by the uteroovarian ligament and Ovarian tissue in the wall of the gestational sac should be proven by histopathology. Ovarian Follicle can accommodate the expanding ectopic gestation more readily than the tube but 75% of ovarian gestation rupture in the early first trimester and are usually misdiagnosed as corpus luteal haemorrhage. Advanced ovarian pregnancies with fetal death have been reported. 91% of OEP rupture before the end of 1st trimester. we present a case of Ovarian Ectopic Pregnancy, who reported to our hospital as failed termination of early pregnancy and ongoing second attempt of termination. USG detected a gestational sac with a live fetus of 12 weeks behind the uterus and a foley's catheter balloon in empty uterine cavity. Subsequently confirmed at surgery as ovarian pregnancy. and proven by histopathology.

Keywords: Ovarian Ectopic Pregnancy, Corpus Luteal Cyst, Laparotomy, Oophorectomy, Foleys, Balloon

Introduction

An ectopic or extrauterine pregnancy is one in which the blastocyst implants anywhere other than the endometrial lining of the uterine cavity, with an estimated incidence of 1.5% to 2% among all pregnancies [1]. It is a very risky and possibly a life-threatening condition, being one of the most common causes of maternal mortality in the first trimester of pregnancy [2]. The most common site of ectopic pregnancy is tubal, with the incidence being 95% to 97%. The other sites are cervical, ovarian, peritoneal and caesarean/ hysterotomy scars. Ovarian ectopic pregnancy is a very rare entity, with an estimated incidence of 1/7000-1/40,000 live births and 0.5-3% of all ectopic gestation [1].

Case Report

P B a 26-year-old (Gravida 3 Para 2) female attended emergency department with history of amenorrhea of 12 weeks 4 day with history of ongoing process of termination of pregnancy. She had two full term spontaneous vaginal deliveries with two living male children. Last child birth was six years back. This time, she conceived spontaneously. She attended a nearby referral hospital, where termination of pregnancy at 6 weeks by surgical evacuation was attempted after preliminary investigations including an ultrasonography. Month later she was found positive for urine pregnancy test, she was referred to a tertiary hospital. Termination with vaginal Misoprostol and transcervical intrauterine foley catheter failed to yield any

dilatation or expulsion. She attended our institution with non deflatable foley's catheter balloon in utero. There was no history of use of any contraceptive device, Menstrual disorder, pelvic inflammatory disease, tuberculosis or any abdominal surgery. There was no family history of tuberculosis.

On general examination, the patient had pallor, tachycardia with a pulse rate of 128/minute and BP of 100/60 mm Hg. On per abdomen examination, there was guarding with mild tenderness in the left iliac fossa. Per speculum examination revealed a healthy cervix and vagina with bloody discharge coming through the external os with foleys catheter in situ. Per vaginum examination revealed an enlarged anteriorly displaced anteverted uterus. Left adnexal mass occupying the POD with positive Cervical Excitement Test (CET) was noted. Right adnexa were non tender and free.

On investigation, her Urine Pregnancy Test was positive, Haemoglobin was 7.2 gm/dL, Total Leukocyte Count was 10,500/ mm³, Platelet Count was 234 thousands/mm³ and rest of the investigations were within normal limits.

Pelvic ultrasonography (PAS) showed an enlarged anteverted empty uterus with inflated foley's balloon in situ and endometrial thickness of 10 mm. No intrauterine gestational sac was seen. Double echogenic ring within the left adnexal mass seen behind the uterus. It contained a gestational sac with 12 weeks live fetus. It also showed increased peripheral vascularity. There was obliteration of cul-de-sac and free fluid with internal echoes above the sac. Sonographic findings were suggestive of

left sided ectopic gestation with mild hemoperitoneum. [Figure 1]. Provisional diagnosis was made as left sided ruptured ectopic pregnancy with inflated foley's balloon in Utero. The balloon couldn't be deflated even after cutting the tube at a level nearer to the cervix. Blood availability was confirmed. Decision for laparotomy was taken. Exploratory Laparotomy revealed mildly enlarged uterus with thinned out hemorrhagic caesarean scar and bilateral normal fallopian tubes. The right ovary was normal. There was hemoperitoneum of approximately 200 mL with large clots surrounding the left ovary. The sac was incised, a 12week fetus was removed [Figure 2]. The placenta was attached to the ovary and posterior uterine wall and rectosigmoid colon. Dissection was done meticulously, entire tissue including ovary was excised and sent for histopathology. Oozing from the placental bed was managed by firm and pressure, ligation and electrocoagulation. The foley's catheter balloon was deflated by aspiration of water and removed.

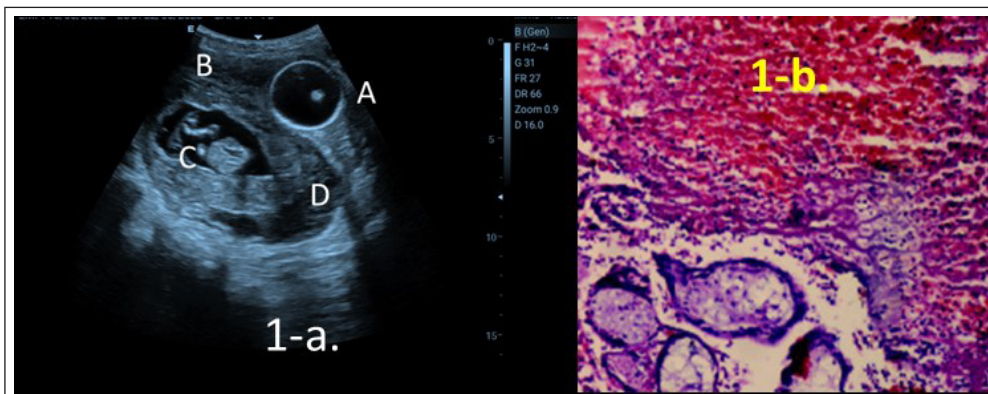


Figure 1a: A-Inflated Foley's Balloon. B- Uterus, C- Gestational Sac, D- Ovarian Tissue.
Figure 1b: Histopathological image showing ovarian tissue decidual tissue with chorionic villi.

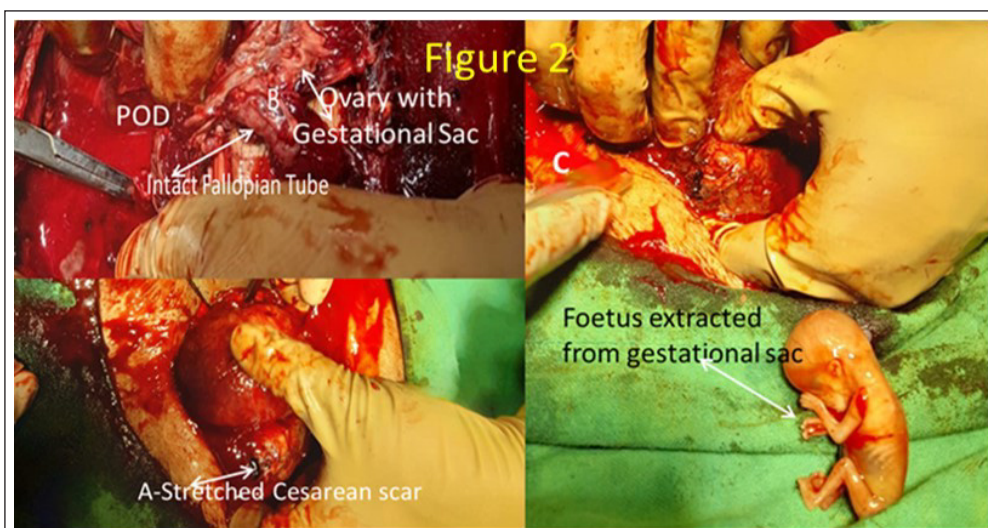


Figure 2: A-Stretched Cesarean scar with hemorrhage. B- Ovary with Gestational sac and Intact Fallopian tube, C- Ovary after extraction of the fetus.

Bilateral tubal ligation was done on couple's request. Total blood loss was estimated to be approximately 1.2 liters. Provisional diagnosis of left sided ovarian ectopic pregnancy ultrasound was confirmed by the intra-operative findings.

Histopathology & Examination Report “-stained sections taken from the biopsy submitted reveals chorionic villi lined by cytotrophoblast and Syncytiotrophoblast cells intervened by loosely held myxoid stroma with elongated cells along with adjoining polygonal decidual cells with vesicular to hyperchromatic nuclei, prominent nucleoli with abundant pale eosinophilic cytoplasm along with areas of hemorrhage and necrosis with few ghosts of chorionic villi. Blood clots are seen adjacent to corpus luteum. Tube – unremarkable”

The intraoperative findings and the histopathology examination satisfied the criteria for ovarian pregnancy as described by Spiegelberg.

Discussion

We find only a few studies on unsuccessful surgical abortion. Factors attributing to failure of surgical abortion are anatomical position of uterus like extreme anteversion and retroversion, Uterine anomalies like bicornuate uterus and an extrauterine pregnancy. In our case, the failure was due to extra uterine pregnancy. Use of intracervical foley catheter with vaginal misoprostol is a safe, effective and acceptable most commonly used method for termination of second trimester pregnancy. But presence of a pregnancy in uterus has to be confirmed. In our case the performer didn't rule out of possible Ectopic Pregnancy. Incidence of ovarian pregnancy is 0.001-0.013% of all pregnancies and 3% of all the ectopic gestations [1]. Factors favoring Ovarian Pregnancy are pelvic tuberculosis, IUCD use, Assisted reproductive techniques (ARTs), endometriosis and pelvic inflammatory disease [3]. The present case had no history of any IUCD insertion and other risk factors. Ovarian ectopic pregnancies can be primary or secondary. In Primary Ovarian

Pregnancy, Intrafollicular Fertilisation occurs whereas in secondary, fertilization takes place in the tube and the expelled conceptus is implanted in the ovarian stroma.

Conditions like distal tubal ectopic pregnancy, hemorrhagic ovarian cyst and ruptured corpus luteal cyst and chocolate cysts need to be ruled out before arriving at diagnosis. Ovarian pregnancy usually ruptures early in the first trimester, but we find few cases in literatures where the pregnancy is continued up to and beyond 14 weeks [3]. Sonographic findings of a gestational sac adjacent to ovary seen as a double echogenic ring within a hypoechoic adnexal mass and the presence of ovarian cortex which included corpus luteum/follicles around the mass because of the increased peripheral vascularity around the sac [1]. Corpus luteal cysts have thinner walls thus are less echogenic than the endometrium whereas hemorrhagic cyst has fine internal lace like pattern [1].

Patient Perspective

Three units of blood transfusion was given intra and post-operatively. The drain was removed on third post operative day. Patient had an uneventful recovery and was discharged on day four of surgery. Patient was healthy without any complication during follow-up at six weeks.

Conclusion

To reduce errors, one should confirm pregnancy status and determine intrauterine location and gestational duration before initiating termination of pregnancy and appropriate method to be employed. More ovarian ectopic pregnancy is being reported, use of improved transvaginal ultrasound technology. Underdiagnosis of ectopic pregnancy can lead to potentially serious complications. Preoperative diagnosis of ovarian ectopic pregnancy is often challenging due to its similarity with ruptured corpus luteal cyst, hemorrhagic ovarian cyst and distal tubal ectopic pregnancy. Laparotomy or Laparoscopy with histopathologic confirmation is required for accurate diagnosis. Management is essentially surgical and early diagnosis and intervention can prevent mortality and morbidity.

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