## POSTDATE UNRUPTURED OVARIAN ECTOPIC PREGNANCY: A CASE REPORT.

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#### **ABSTRACT**

Advance ovarian ectopic pregnancy (OEP) is a very rare condition and is typically difficult to diagnose and associated with high maternal and neonatal morbidity and mortality. We present a case report of a primigravida diagnosed with a postdate ovarian ectopic pregnancy at laparotomy.

**Keywords:** advanced ovarian pregnancy, postdate, laparotomy

### INTRODUCTION

Ectopic pregnancy occurs when the embryo implants anywhere other than the uterine cavity. Ectopic pregnancy constitutes 1-2% of all pregnancies and is among the leading causes of maternal morbidity and mortality. Ovarian ectopic pregnancy is one of the rarest subtypes with an estimated incidence of 0.5-3.5%.

The first case of ovarian pregnancy was reported in 1689 by St Maurice and only eleven cases have been previously reported base on literature search carried out on PUB MED<sup>2</sup>

Because of the rarity of this condition, it is often not considered as a diagnostic possibility and could easily be missed.

Furthermore, an accurate diagnosis is not easily arrived at and may require series of procedures including a surgical intervention in majority of cases. Consequently a high but unfortunately unknown number of cases have remain undiagnosed with fatal consequences. Therefore, early and accurate diagnosis is vital to prevent serious outcomes and to overcome severe complications. Here, we report a case of a post date ovarian ectopic pregnancy occurring after

spontaneous conception.

## **CASE REPORT**

The patient was a 21 year old primigravida who was unsure of her last menstrual period but ultrasound done at presentation estimated her to be 41 weeks pregnant. She was of low socioeconomic status and did not book her pregnancy for antenatal care, she presented to the hospital with complaints of generalized mild abdominal pains and decrease perception of foetal movement of one week duration. There was history of Pelvic inflammatory disease in the past, however, no history of ovulation induction or IUCD use.

On examination, her general condition was stable with pulse rate of 84 beats per minute and blood pressure of 100/70 mmHg. On abdominal examination, the fundal height was 36cm with a singleton foetus in longitudinal lie and cephalic presentation. No contractions were felt on palpation. Foetal heart tones were not felt. Vaginal examination revealed a firm, posterior cervix that was closed. Her parked cell volume was 34% and obstetric ultrasound showed a post date nonviable pregnancy in cephalic presentation she was

counseled on the findings and she consented to cervical ripening and induction of labour. She had four doses of 25µg misoprostol (cytotec) inserted 6 hourly in the posterior vaginal fornix but no changes were observed in the cervix. The dose was stepped up to 50µg for which she had another 3 doses yet no changes were observed in the cervix. A suspicion of cervical dystocia was made and she was planned for a caesarean delivery with the following intra-operative findings;

- A non gravid bulky uterus that was intact measuring about 8cm x 6cm
- Normal left ovary and fallopian tube

- Normal right fallopian tube
- A fresh male still born in an intact amniotic cavity within the right ovary measuring about 25cm x 15cm. The baby weighed 2.5kg
- Placenta attached internally to the ovarian sac and omentum attached to the wall of the ovarian sac externally.
- The ovarian sac was connected to the uterus by ovarian ligament.
- Healthy ovarian tissues noted on the inferior portion of the ovarian sac.



### **DISCUSSION**

Ovarian ectopic pregnancy is one of the rarest forms of ectopic pregnancy.<sup>2</sup> These pregnancies usually do not extend to 37 weeks and usually end up with foetal loss with associated maternal morbidity and mortality.<sup>4</sup> For correct diagnosis, the traditional criteria proposed by Spigelberg in 1878 must be fulfilled.<sup>2</sup> These criteria include: Intact fallopian tube on the affected side, foetal sac occupying the position of the ovary on the affected side, ovary connected to the uterus by ovarian ligament, and ovarian tissue must be located in the sac.

The findings in this patient met the criteria put forward by Spigelberg, however, the ovarian tissue was noted on the ovarian sac but was not sent for histological confirmation.

Ovarian pregnancy could be primary or secondary from tubal abortion.<sup>2</sup> There is paucity of information on the causes of ovarian pregnancy.<sup>2</sup> Possible explanations for primary ovarian pregnancy suggested includes interference in the release of the ovum from the ruptured follicle, malfunction of the tubes and inflammatory thickening of the tunica albugenia.<sup>2</sup>

This inflammation could result from pelvic inflammatory disease which our patient was treated for in the past. Other risk factors are use of IUCD and control ovarian hyperstimulation in ART cycles. Majority of cases are diagnosed in the first trimester as rupture commonly occurs at the 7<sup>th</sup> week of gestation. Patients will present with

symptoms of abdominal pains, syncopal attacks and varying degrees of vaginal bleeding.<sup>5</sup> Our patient was unique being that the pregnancy was carried to 41 weeks.

The diagnosis of advanced ovarian pregnancy is very challenging, history and physical examinations are inconclusive. 4 It is easier to reach a diagnosis during the first trimester using high resolution transvaginal ultrasonography, making quantitative measures of  $\beta$  human choronic gonadotrophin (β HCG) levels and performing laparoscopy. 4,8,9 Our patient did not register for antenatal clinic, hence the opportunity for early ultrasound evaluation and possible diagnosis of extrauterine gestation was missed. Observing the entire uterine wall encapsulating the pregnancy and placenta confirms intrauterine pregnancy. If ultrasonography shows no uterine wall surrounding the foetus and if foetal parts are very close to the abdominal wall, then the suspected diagnosis will be extrauterine.4

Extrauterine pregnancies should also be suspected in cases of vaginal bleeding with non-labour abdominal pains in the 3<sup>rd</sup> trimester and post date pregnancy with a failed Induction of labour as it was in our case.<sup>4</sup>

Treatment for ovarian ectopic pregnancy could be expectant, pharmacological or surgical (open or laparoscopy) depending on the gestational age, haemodynamic status of the patient, serum  $\beta$  HCG level and presence or absence of cardiac activity. Expectant and medical treatment may be suitable for patients that are asymptomatic with no evidence of rupture, absent cardiac activity small gestational age and declining serum  $\beta$  HCG level in patients who are likely to comply to follow up. 1.10

Success rate with methotrexate is >80% with the beta HCG level between 10000 and 14999 mIU/mL but according to the American society of reproductive medicine guidelines, a  $\beta$  HCG level more than 5000 mIU is a relative contraindication to medical therapy. <sup>2,7,8</sup>

In our case, though the patient was haemodynamically stable with no evidence of rupture and absent cardiac activity, the pregnancy was carried to post date and the diagnosis of ovarian ectopic pregnancy was made intraoperatively. She had laparotomy with right ovariectomy and was transfused 2 unit of blood. She responded well to treatment and was discharged post op day 5.

### **CONCLUSION**

Ovarian ectopic pregnancy is by no means an easy diagnosis to make preoperatively, when carried to term as was in our case, the diagnosis becomes even more difficult. This case report supports the consideration for possible ovarian ectopic pregnancy as a differential diagnosis when cervical changes fail to occur despite several attempts to ripen the cervix and be prepared to manage the patient as such.

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