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CASE REPORT

Ruptured Ovarian Ectopic Pregnancy a Case Report from Leku General Hospital, Ethiopia

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Abstract

An ovarian ectopic pregnancy is rare occurrence and it is implantation of throphoblastic tissue in or on the ovarian tissue. Most of the time delayed for diagnosis due to its resemblance on ultrasound as hemorrhagic ovarian cyst, hemorrhagic corpus luteum cyst or endometrioma. Usually it ruptures in the first trimester of pregnancy and due to its rich blood supply it is deadly hemorrhagic once it is ruptured. We present a 26-years-old para 2 mother with the case of ruptured ovarian ectopic pregnancy who was diagnosed intraoperatively in our resource limitted setup.

Keywords

Ectopic pregnancy, Ovarian ectopic pregnancy, Corpus luteum, Spiegelberg criteria, Fallopian tubes, Intrauterine pregnancy

Introduction

An ectopic pregnancy is characterized by implantation and development of trophoblast tissue outside of the uterine cavity. The most common site for ectopic pregnancy is in the fallopian tube with the incidence being 95-97%.There are also other rare sites like, cervical, ovarian, peritoneal and hysterotomy scar [1,2].

Ovarian ectopic pregnancy is implantation in the ovarian tissue and it is the rarest entity of ectopic pregnancies with estimates of frequency ranging from 1 in 7000 to 1 in 40000 pregnancies or 0.3-3% of all ectopic pregnancies. Traditional indicators of risk for ovarian ectopic pregnancy are similar to those for tubal pregnancy, however intrauterine devices appears and reported to be more strongly related [3,4].

Even if specific and typical features of ovarian ectopic pregnancy have not been reported, most cases presented with different duration of amenorrhea, lower abdominal pain and some present with spoty vaginal bleeding. Once it is ruptured patients present with sudden hemodynamic deterioration. So early diagnosis and management saves once life.

Case Report

This is a 26-years-old para 2 mother who presented to our Leku general hospital with the complain of sudden lower abdominal pain, vomiting and unspecified syncope. She had regular menstrual cycle but she missed her last menses 6 weeks back. She has no hx of any contraceptive. She was complaining dull aching intermittent pelvic pain for last 1week. Currently the pain was persistent and with sudden synchope. At presentation she was in shock with Blood pressure of 80/50 mmgh, she was tachycardia with heart rate 110 bpm. She had moderately pale conjuctiva. In the emergency department fluid resucitation started and Investigation sent. Labratory revealed with positive urine HCG, hematocrit 20.4% and blood group was B+ve. For this gynacological unit of the hospital was consulted and transabdominal ultrasound was done which revealed empty uterus, massive pelvic collection Lt Side adnexal heterogeneous and anechoic collection. With impression of ruptured ectopic pregnancy she had been taken to operation theater and general anesthesia given and via the pfanenstiel like incision abdomen opened, there was around 1200 ml hemoperitoneum. The fallopian tubes were quite healthy looking. There

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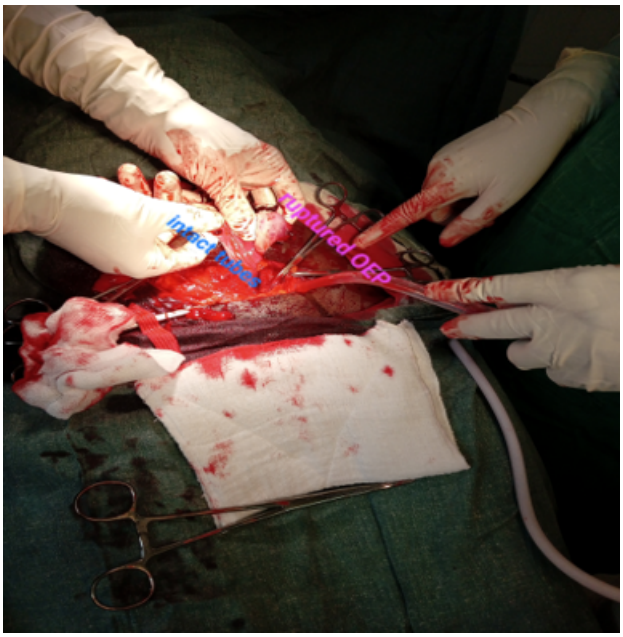

Figure 1: Intraoperative picture of ruptured left ovarian ectopic pregnancy.

was active bleeding from left ovary which is with ruptured ectopic and near to abort conceptus tissue from the ovary, later histopathology confirmed ovarian pregnancy (Figure 1). Left side ophorectomy was done since the patient was hemodynamically unstable and there was multiple oozers from the left ovary. Inntraoperativelly after hemostasis secured, 1 unit blood transfusion started. Patient awake, extubated and transfered to recovery unit. Her post-operative stay was uneventful and discharged on the 3rd day. On follow up appointment she visited the gynecologic clinic in stable condition.

Discussion

Primary ovarian pregnancy is one of the rarest extra uterine pregnancy. The incidence of ovarian ectopic pregnancies has increased over the past decades from 0.7% to 1 of all ectopic pregnancies in the 1950s to up to 3.5% in recent studies. There are two types of ovarian ectopic pregnancies;

1. Intrafollicular ovarian pregnancy when the ovum remains trapped within the follicle and fertilization occurs within the follicle and not expelled.
2. Extrafollicular ovarian pregnancy when the mature ovum is fertilized outside the ovary and implants on its surface. According to systematic reviews ovarian pregnancies seem to be associated with similar causal factors as extra uterine pregnancies, such as PID, IVF, previous ectopic pregnancy, intrauterine devices or tubal surgery however intrauterine devices (IUDs) appears to be more strongly related [4,5].

The exact cause of implantation in the ovarian ectopic pregnancies is uncertain, but several hypotheses have been proposed:

1. Delayed ovum release
2. Thickning of the tunica albuginea
3. Tubal dysfunction
4. Use of IUDs.

Are among the few to mention. Thinking of these, researchers suggest and tried to mention two hypothesis and attempt to explain the cause under this hypotheseses. One theory suggests fertilization occurs normally and the fertilized egg then reflexes from the fallopian tube to the ovary, where it implants. The alternative hypothesis proposes the egg is fertilized within the ovarian follicle before it is released, leading to implantation on the ovary [4,6].

Mostly patients of ectopic pregnancy comes with triade of delayed menstruation, pain, vaginal bleeding or spotting and a positive pregnancy test. However, only 50% of patients present with typical symptomatology. Mostly before rupture of the ectopic pregnancy, the ovarian ectopic pregnancies are delayed in diagnosis and missed than the tubal ectopic pregnancies. Because the gestational sac of an ovarian ectopic pregnancy resembles a hemorhagic corpus luteum cyst or ovarian endometrioma or other hemorrhagic simple ovarian cysts on ultrasound. So high level suspicion is mandatory in these type of cases. Most of the time ovarian ectopic pregnancy is diagnosed intraoperatively. There is Spiegelberg's criteria which rely on intraoperative findings and include;

1. An intact fallopian tube on the involved side.
2. The gestational sac within the ovary.
3. The ovary attached to the utero-ovarian ligament.
4. On histological examination the ovarian tissue present in the wall of the gestational sac [7,8].

The preoperative diagnosis of an ovarian ectopic pregnancy can be difficult because the symptoms are not specific and the ultrasound diagnosis is also difficult where there is no advanced ultrasound is available in most resource limited areas like our setups.

Usually ovarian ectopic pregnancy rupture in the 1st trimester of pregnancy and it is associated with significant maternal morbidity and mortality, due to the risk of internal hemorrhage and hemodynamic instability. Since the ovarian tissue is rich in blood supply, it can lead to deadly hemorhage once the ovarian ectopic pregnancy is ruptured [6].

Surgical management is the treatment choice in the case of ovarian ectopic pregnancies. Open surgery is still comes the first hand in most resource limited areas like our setup. If ovarian ectopic has been diagnosed the management may include salpingo-oophorectomy, oophorectomy, wedge resection, and removal of

gestational product with ovarian tissue preservation [9,10].

Conclusion

Even if ovarian ectopic pregnancy is rare entity, it can present with deadly maternal mortality morbidity unless managed early. The first thing in the management of ovarian ectopic pregnancy is securing hemostasis but if it is possible preserving the fertility by ovarian preservation surgeries like wedge resection of ovary will be grateful for those who have a plan for more birth. Early detection and appropriate management are critical to prevent life-threatening complications.

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Conflict of interest

None.

Ethical approval

We have obtained written informed consent for publication from the patient.

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