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Case Report

A case report on heterotopic pregnancy

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ABSTRACT

Heterotopic pregnancy is a rare clinical condition where both intrauterine and extrauterine pregnancy coexists. In a spontaneous conception, the diagnosis is difficult to make, but an important one to consider in the presence of acute abdominal pain, haemorrhagic shock and intrauterine pregnancy. Presenting a case of 27-year-old female G3P1A1L1 with previous C-section who presented with chief complaints of acute abdominal pain and signs of haemorrhagic shock at a gestational age of 10 weeks 1 day. The diagnosis of ruptured ectopic pregnancy coexisting with viable intrauterine gestation was made with ultrasound findings as well as clinical features necessitating emergency exploratory laparotomy. Successful treatment was done for ruptured ectopic pregnancy and intrauterine pregnancy was found viable which continued to full term uneventfully and live MCH of 3.5 kg was delivered by C-section.

Keywords: Heterotopic pregnancy, Intrauterine, Extrauterine, C-section

INTRODUCTION

Spontaneous heterotopic pregnancy is a complication of pregnancy in which intrauterine (IU) and extra uterine pregnancies occur at the same time. The prevalence of heterotopic pregnancy is estimated at 0.62.5:10000 pregnancies. There is significant rise in incidence of heterotopic pregnancy in women undergoing assisted reproductive technologies with an estimated incidence at between 1-3 in 100 pregnancies. In natural conceptions, the incidence has been estimated to be 1 in 30,000 pregnancies. It can be a life-threatening condition and can be easily missed, with the diagnosis being overlooked.

METHODS

A 27-year-old woman, gravid III para I, with previous cesarean section 3 years back and 1 abortion was admitted in civil hospital, Ahmedabad at two and a half months of amenorrhea, with complains of acute abdominal pain since half an hour. This was a spontaneous conception with no previous infertility

treatment. On examination the patient was conscious and well oriented to time place and person but had profuse sweating and tachycardia, with pulse rate of 130 beats per minute and blood pressure of 100/70 mmHg. Per abdomen examination was soft with mild tenderness and guarding. On per vaginum examination, uterus was bulky of 8-10 weeks size, forniceal tenderness present but no active bleeding was found.

Laboratory data on admission showed serum Hb of 7.8 g/dl. After hemodynamic stability, a bedside abdominal ultrasonography (US) was done, which demonstrated gross free intraperitoneal fluid and a normal looking IU gestation with a crown-rump length (CRL) of 32 mm, with a positive fetal heart rate consistent with a fetal age of approximately 10 weeks and 1 day of amenorrhea and right adnexal mass of 3x3cm. These USG findings (available IU pregnancy with gross intraperitoneal fluid) in a hypovolemic-shocked patient with no history of trauma made us think about the presence of a possible concurrent ectopic pregnancy.

An emergency exploratory laparotomy was performed under spinal anesthesia through a pfannenstiell incision, leading to a finding of a ruptured right tubal (ampullary region) ectopic pregnancy. Around 750 cc of blood was evacuated from the free peritoneal cavity with large amounts of clots. Both the ovaries and left sided fallopian tube appeared normal. A total right salpingectomy was performed with drainage of the hemoperitoneum.

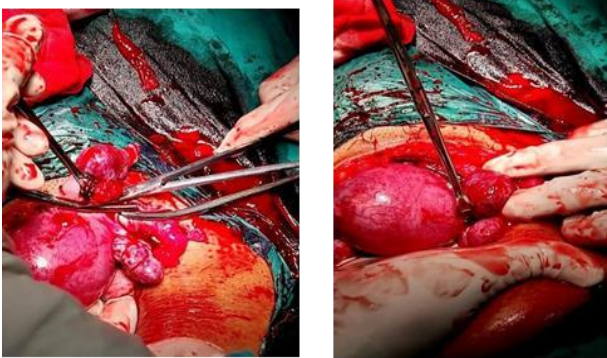


Figure 1: Per operative: right sided ruptured ectopic pregnancy.

The patient was transfused with 2 unit of PCV intra op. The post-operative period was uneventful. Histology of the salpingectomy specimen confirmed chorionic villi suggestive of ruptured ectopic pregnancy. An ultrasound scan on the post-operative day 4, showed a viable IU pregnancy. The patient was discharged uneventfully, was given progesterone support and was called for regular antenatal checkups. Fetal growth monitoring with regular antenatal ultrasound was done for the viable intrauterine pregnancy and the pregnancy continued to full term uneventfully.

The patient presented to the hospital with abdominal pain and tachycardia at 39 weeks of gestation and decision for emergency C-section was taken in view of scar tenderness and live male child of 3.5 kg was delivered. Rest of the CS was uneventful. Post operatively stable patient was shifted to ward. The patient was discharged after 5 days uneventfully.

DISCUSSION

In a heterotopic pregnancy there is one fertilized ovum which implants normally in the uterus, and one fertilized ovum which implants abnormally, outside of the uterus. In the general population, the major risk factors for heterotopic pregnancy are the same as those for ectopic pregnancy: like previous history of ectopic pregnancy, tubal surgery, pelvic inflammatory disease, use of an intrauterine device, smoking etc.^{1,2} Women participating in an assisted reproductive technology like in vitro fertilization and gamete intra fallopian transfer have significantly increased risk of heterotopic pregnancy.

The gold standard for diagnosing a heterotopic pregnancy is the transvaginal ultrasound in early pregnancy especially in those conceived via ART or those with risk factors for ectopic pregnancy. However, the sensitivity of the transvaginal ultrasound for diagnosing a heterotopic pregnancy has been found to range from 26.3% to 92.4%.³ Therefore, both clinical symptoms and ultrasound imaging are used to make the diagnosis. The goal of treatment is to preserve the viable intrauterine pregnancy and to remove the nonviable ectopic pregnancy. Ectopic gestation can be managed by conservative approach or surgical approach.

Conservative approach for unruptured ectopic pregnancy can be done with or without drugs. For this method, ultrasound is used to guide a needle to the ectopic pregnancy and substances such as hyperosmolar glucose or potassium chloride are injected directly into the ectopic sac.¹ Methotrexate is not used as it is fetotoxic for the intrauterine pregnancy. In Surgical management, laparoscopy is the standard approach as it gives good operative field exposure, results in fewer postoperative adhesions, lesser blood loss, less pain and also less uterine manipulation leading to decreased rate of miscarriage and preterm labour.

Laparotomy is reserved for hemo-dynamically unstable patients. With either approach a salpingectomy or salpingostomy is performed. Surgical management gains the advantage of complete removal of the ectopic pregnancy but it may be associated with a higher rate of miscarriage of the intrauterine pregnancy.¹ Successfully continuing the intrauterine pregnancy following removal of the extra uterine is possible and has a success rate of about 50 to 66%.⁴

CONCLUSION

Heterotopic pregnancy is rare but is increasing in frequency with ART. For every pregnant woman presenting with acute abdominal pain and hemo-peritoneum, heterotopic pregnancy should be kept as differential diagnosis, especially those with history of PID. Laparoscopic management is the standard approach though treatment will depend on clinical presentation and stability.

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