

Case Report

Acute Presentation of Spontaneous Heterotopic Pregnancy Presenting with Tubal Rupture

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Abstract

Spontaneous heterotopic pregnancy is a rare clinical condition in which intrauterine and extra uterine pregnancies occur at the same time. It can be a life threatening condition and can be easily missed with the diagnosis being overlooked. We are presenting the case of a 24 year old Para 2+1 young female who presented with pain abdomen and vomiting after an induced abortion. Ultrasonography revealed intrauterine embryo of 7- 8 weeks without cardiac activity suggesting missed abortion and, with right adnexal mass about (7 x 6) cm adhered to the uterus with free fluid in pouch of Douglas. The patient presented acutely with a ruptured tubal pregnancy and this was managed by laparotomy. The ectopic pregnancy was not suspected at her initial presentation. A high index of suspicion is needed in women with risk factors for an ectopic pregnancy and in low risk women who have free fluid with or without an adnexal mass with an intrauterine gestation.

Keywords: Heterotopic pregnancy, Ectopic pregnancy, Maternal Mortality

1. Introduction

Spontaneous heterotopic pregnancy is a rare clinical condition in which intrauterine and extra uterine pregnancies occur at the same time. The incidence of heterotopic pregnancy is very low and spontaneous heterotopic pregnancies are quite rare. Heterotopic pregnancies are becoming more common following assisted reproductive techniques for subfertility and increased incidence of pelvic inflammatory disease. The frequency of heterotopic pregnancy was originally estimated on theoretical basis to be 1 in 30,000 pregnancies.¹ Most heterotopic/ectopic pregnancies are diagnosed when symptoms develop. It is known to present with a variety of symptoms and signs often leading to delay in establishing the correct diagnosis. It can be a life threatening condition if the diagnosis is missed or delayed. We are presenting a heterotopic pregnancy who presented with pain abdomen after an induced abortion by medical method.

2. Case report

We are presenting the case of a 24 year old Para 2+1 young female of rural area in eastern India who presented with pain abdomen and vomiting. She had 8 weeks pregnancy for which she took mifepristone and misoprostol for medical abortion prescribed by local doctor. She had bleeding per vagina for five days after medication. She developed pain abdomen and vomiting with low grade fever after 8 days of medical abortion with mild vaginal bleeding. Then, she was admitted with pain abdomen at malda medical college and hospital, a rural medical college in eastern India for better management. Her pain was colicky in nature mainly in the lower abdomen. There was no history of dizziness or fainting spells. There were no gastrointestinal symptoms. Her menstrual cycle was regular. She had no significant past medical history. She had no risk factors for ectopic pregnancy.

General examination revealed moderate pallor with tachycardia of 110 beats per minute with blood pressure of 110/60 mmHg. Chest was clinically clear. Abdominal examination revealed mild tenderness in lower abdomen. Vaginal examination showed a normal lower genital tract. Uterus was approximately 8 weeks size with a right adnexal mass around 6x6 cm, adhered to the uterus with mild tenderness. Her urine pregnancy test was positive. Ultrasonography revealed intrauterine embryo of 7- 8 weeks without cardiac activity suggesting missed abortion with right adnexal mass about (7 x 6) cm adhered to the uterus. There was small collection in pouch of Douglas. Her blood count was 15000/cmm with Hb% 7.8 g/dl.

Laparotomy was performed with two units of blood in hand. On laparotomy, there was haemoperitonium of approximately 600ml with right sided ampullary ruptured ectopic pregnancy with gross adhesion to the right ovary and uterus [Fig 1]. Left tube and ovary was healthy. Right sided salpingo-oophorectomy and left sided tubectomy done. Suction evacuation was performed vaginally before abdomen was closed after proper peritoneal wash. Post operative period was uneventful and she was transfused two units of blood. She was discharged on 7th post operative day. Histopathological examination confirmed both ectopic and intrauterine pregnancy.

Figure 1: Picture showing ectopic pregnancy after dissection



3. Discussion

Ectopic pregnancy is defined as pregnancy that implants outside the uterine cavity. Heterotopic pregnancy is defined as the presence of multiple gestations, with one being in the uterine cavity and the other outside the uterus commonly in the fallopian tube and uncommonly in the cervix or ovary.^{2,3} The incidence of heterotopic pregnancy is very low and spontaneous heterotopic pregnancies are quite rare. However, more recent data indicate that the rate is higher due to assisted reproduction and is approximately 1 in 7000 overall and as high as 1 in 900 with ovulation induction. Heterotopic pregnancy can have various presentations. It should be considered more likely (a) after assisted reproduction techniques, (b) with persistent or rising chorionic gonadotropin levels after dilatation and curettage for an induced/spontaneous abortion, and (c) when vaginal bleeding is absent in the presence of signs and symptoms of ectopic gestation.² Other surgical conditions of acute abdomen can also simulate heterotopic gestation clinically and hence the difficulty in clinical diagnosis. Bicornuate uterus with gestation in both cavities may also simulate a heterotopic pregnancy. Majority of the reported heterotopic pregnancies are of singleton intrauterine pregnancies. Triplet and quadruplet heterotopic pregnancies have also been reported, though extremely rare.⁴ The detection rate of heterotopic pregnancy can vary from 41 to 84% with transvaginal ultrasound scans.^{5,6} 70% of the ectopic pregnancies are diagnosed between five and eight weeks of gestation, 20% between nine and ten weeks and 10% after eleven weeks of gestation.⁷ Heterotopic pregnancies can pose a diagnostic dilemma because an early transvaginal ultrasound may not diagnose an ex-utero gestation in all cases. A diagnosis of a pseudosac should be made with caution, as even in the presence of a pseudo sac there can be a high false positive diagnosis of an ectopic pregnancy.⁸

The question however arises in women with spontaneous gestations who do not necessarily have early ultrasound scans. Women with previous ectopic pregnancy, tubal surgery or previous pelvic inflammatory disease may be at a higher risk and should be scanned at an early gestation to confirm the location of the pregnancy. Also a high index of suspicion is necessary in the low risk symptomatic patient with abdominal or pelvic pain. The diagnostic role of serum beta hCG levels in heterotopic pregnancy is debatable. The normal algorithm for the rapid rise in the serum beta hCG in early pregnancy cannot be used due to the presence of the intrauterine gestation which could lead to false assurances.⁹

Heterotopic pregnancy is possible with natural conception and the survival of the intrauterine fetus is feasible.¹⁰ The presence of an intrauterine pregnancy tends to impede the early diagnosis and precludes definitive intervention for the ectopic pregnancy. The illustrated case did not have any risk factor for the heterotopic pregnancy. The important learning point from our case was that the diagnosis was not suspected at the initial presentation and the patient presented subsequently with acute abdominal pain with intra peritoneal haemorrhage.

4. Conclusion

A heterotopic pregnancy, though extremely rare, can still result from a natural conception. It requires a high index of suspicion for early and timely diagnosis. A timely intervention can result in a successful outcome of the intrauterine fetus. Similarly if a patient continues to have ongoing abdominal or pelvic pain with a confirmed intrauterine pregnancy, one of the differential diagnoses should be heterotopic pregnancy.

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