Case report

A case report on heterotopic pregnancy

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Abstract

Heterotopic pregnancy means presence of concomitant intrauterine and extrauterine pregnancy. Heterotopic pregnancies are very rare. In this case, heterotopic pregnancy occurred as a result of ovulation induction. Methotrexate was given for the extrauterine pregnancy as the intrauterine pregnancy was miscarried on its own accord. So, obstetricians should be more concerned to diagnose ectopic and heterotopic pregnancies, if the patient has complaint of pain in early pregnancy. Early diagnosis is also important to prevent maternal morbidity and mortality.

Keywords: Heterotopic pregnancy, ectopic, ovulation induction.
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Introduction

Heterotopic pregnancy refers to presence of simultaneous 2 pregnancies in two different implantation sites. The incidence is 1 in 30,000 cases in spontaneous pregnancies. But the incidence is higher in the pregnancies resulting from ART (Assisted reproductive technology). It is as high as 1 in 3900 cases.[1] About ninety percent ectopic pregnancies occur in fallopian tube. Clomiphene citrate is associated with higher incidence of heterotopic pregnancy.[2] Heterotopic pregnancies are a challenge for obstetricians to diagnose and management. If left undiagnosed, it may be associated with high maternal morbidity and mortality.[3] The diagnosis is difficult because human chorionic gonadotropin hormone level may normal and in ultrasonography the extrauterine site may be missed.[4]

Case report

A 28 years lady, primigravida presented with 8 weeks gestation with intermittent per vaginal spotting and mild lower abdominal pain for 2 days. She was a diagnosed case of polycystic ovarian syndrome with primary subfertility and after proper evaluation, she was taking ovulation inducing drugs for last two months. After admission to the hospital, her vital signs were within normal limits. On physical examination, there was diffuse tenderness in hypogastric region without muscle guard or rigidity. Laboratory tests revealed, hemoglobin was 10.5 g/dl, β-HCG was 9650 IU/L and ultrasonography revealed right sided tubal pregnancy. Both ovaries were unremarkable. After 48 hours, her β-HCG raised to 11,448 IU/L and ultrasonography revealed an intrauterine gestational sac (22mm) with no heartbeat. There was also a heterogenous complex mass in right fallopian tube, suggestive of a gestational sac, which was 29mm in size. There was no pelvic collection. The patient was treated with Methotrexate. In her follow up visits, ultrasonography was normal.

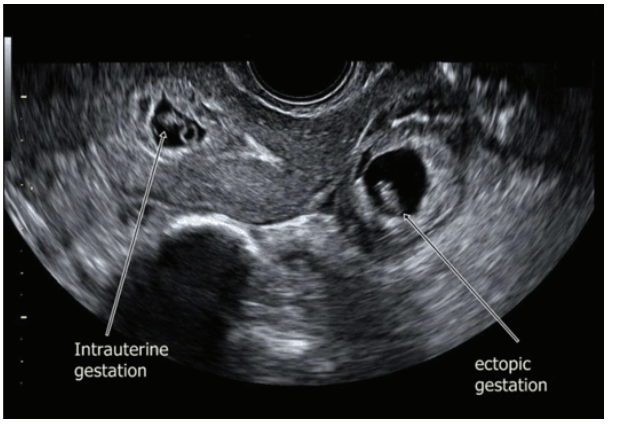

Figure 1: 2 gestational sacs in ultrasonography of heterotopic pregnancy

Discussion

Though heterotopic and ectopic pregnancies are rare in spontaneous pregnancies, but now-a-days these cases are increasing due to assisted reproductive technology (ART) and pelvic inflammatory disease.[5] Heterotopic pregnancies are about 30 to 60 times higher in pregnancies with ART.[6] The diagnosis of heterotopic pregnancy is challenging and most of the times delayed. Because, presence of an intrauterine pregnancy makes the clinicians bias to exclude tubal pregnancy, mostly asymptomatic patients.[7] B HCG levels are also non reassuring.[8] Studies show that, half of the patients are asymptomatic.[9] But patients may present with abdominal pain, per vaginal bleeding and also shock. The delay in the diagnosis may results into life threatening complications.[10]

Transvaginal ultrasonography may help in these cases for early diagnosis and preventing complications. Ultrasonography may show complex adnexal mass,

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hematosalpinx and pelvic collection.[11] MRI can also be helpful. It can reveal adnexal mass, gestational sac, dilated fallopian tubes, pelvic hematoma.[12]

Management is controversial. Surgery has surgical and anesthetic hazards. Heterotopic pregnancy should be approached with minimally invasive procedures as laparoscopy according to studies. Laparoscopic salpingectomy is treatment of choice in case of ruptured cases. However, hemodynamically unstable patients may need laparotomy.[13] Studies have shown that 63 to 70% intrauterine pregnancies may reach to viable pregnancy.[14]

Non-surgical methods can be effectively used in stable patients. In this case, Methotrexate was administered as spontaneous abortion occurred in intra uterine pregnancy.

Conclusion

Presence of intrauterine pregnancy does not exclude any possibility of tubal pregnancy. Though heterotopic pregnancy is a rare condition, any pregnancy with abdominal pain and adnexal pathology must exclude heterotopic pregnancy to avoid complications and early management.

Consent

Verbal informed consent was taken from patient for publishing the case report and accompanying images.

Author's contribution: Nusrat Mahjabeen is responsible for patient care, surgery and writing the manuscript.

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