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RESEARCH ARTICLE

HETEROTOPIC PREGNANCY- PROBLEM OF TWO MANY

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ABSTRACT

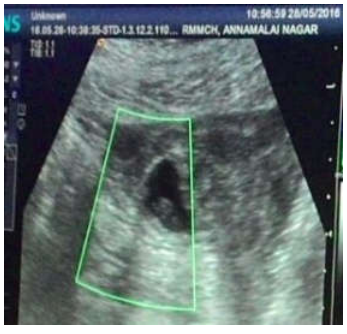
Heterotopic pregnancy is a rare complication commonly seen in the population undergoing infertility treatment. It is a potentially dangerous condition occurring in only 1 in 30,000 spontaneous pregnancies and 1 in 100 to1 in 500 after the advent of Artifical reproductive technique (ART) and ovulation induction. It most often presents as the life threatening emergency like acute abdomen and haemorrhagic shock. Clinician must be alert to the fact that confirming an intrauterine pregnancy clinically or by ultrasound does not exclude the co-existence of an ectopic pregnancy. A high index of suspicion in women is needed for early and proper diagnosis and management with laparotomy or laparoscopy and can result in a favourable and successful obstetrical outcome. This paper represents a case of heterotopic pregnnacy as well as a literature review.

INTRODUCTION

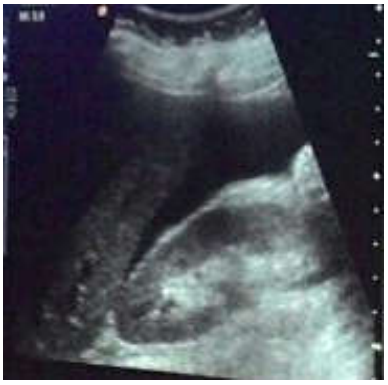
Heterotopic pregnancy is the simultaneous co existence of intrauterine and extrauterinegestation. Extra-uterine being commonly seen in the fallopian tube and uncommonly seen in cervix or ovary. The incidence is very rare in natural conception at a rate of 1 in 30,000 pregnancies [2]. The rate is higher due to ART and its approximately found to be 1 in 100 to 1 in 500. However obstetrician and emergency medicine physician are unlikely to consider this diagnosis as a part of differential in cases with abdominal pain and vaginal bleeding. TVS is the key to diagnose heterotopic pregnancy [1]. However, it continues to have a low sensitivity because the diagnosis is often missed or overlooked. Therefore the diagnosis is often delayed leading to serious problems. Surgical intervention plays a key role in the management of heterotopic pregnancy. The goal is to remove the ectopic pregnancy without jeopardizing the intrauterine pregnancy. Laparoscopic salpingectomy is the standard surgical approach of heterotopic pregnancy. Other management options mentioned in the literature include local injection like potassium chloride, hyper-osmolarglucose (or) methotrexate in to the sac under USG guidance followed by aspiration of the ectopic Pregnancy[3].

CASE REPORT

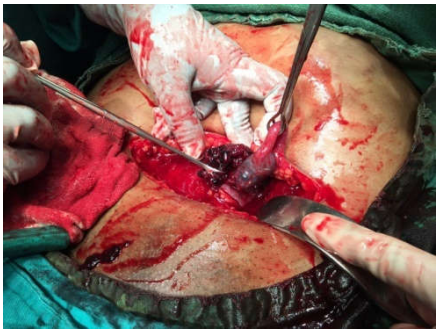
Mrs X, 25 years old was Gravida 2, Abortion 1 with history of two months and fifteen days amenorrhoeapresented to emergency department with severe abdominal pain in shock. Patient had history of conception after infertility treatment with clorniphene. Obstetricultra sound taken earlier revealed a single live intrauterine pregnancy of 7 week gestation. On examination the patient was restless, drowsy withsevere pallor. Pulse rate and blood pressure was not recordable and her abdomen was soft with no guarding and rigidity. On Per speculum examination, there was no active bleeding and on per vaginal examination, uterus was of 10 weeks size. Fornicial tenderness could not be elicited as patient was in shock. Patient was resuscitated with intravenous fluids and blood. Pelvic ultrasound taken at admission revealed a single intrauterine pregnancy of 10 weeks with missed abortion and ruptured extra-uterine gestational sac in the left adnexa with moderate free fluid in the pouch of douglas and hepatorenal angle.



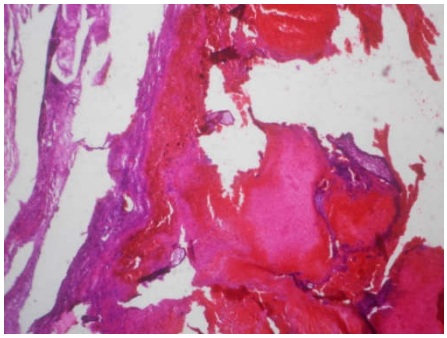
USG showing ectopic gestational sac in the left Adnexa



USG showing free fluid in the hepatorenal angle



Intra operative picture showing left ruptured ampullary ectopic pregnancy



Low power microscopic picture showing tubal wall, chorionic villi and hemorrhage

A provisional diagnosis of heterotopic pregnancy with ruptured left ectopic pregnancy and intrauterine pregnancy of missed abortion was made. A laparotomy was performed revealing an approximately 3x3 cm ruptured ectopic pregnancy at the ampulla of the left fallopian tube with haemoperitoneum of 250cc. Left salpingectomy for ruptured ectopic pregnancy followed by dilatation and evacuation for intrauterine missed abortion was performed. Histopathology confirmed the diagnosis of an ectopic pregnancy and Intrauterine products of conception showed to be decidua and chorionic villi. Post operative period was uneventful.

DISCUSSION

The diagnosis of heterotopic pregnancy is quite challenging because of lack of clinical symptoms and signs as well as diagnostic confusion with the other early pregnancy. With increased uptake of assisted reproduction techniques the overall incidence of pregnancy is rising, up to 1:100 in these subgroup of patients. It can encompass various clinical presentations including bilateral or unilateral tubal, cervical, abdominal or ovarian pregnancies. Risk factors for heterotopic pregnancy are alike to those predisposing to ectopic pregnancies. These include earlier tubal damage rising from pelvic inflammatory disease, endometriosis or tubal surgery as well as previous ectopic pregnancy, smoking cigar, in-vitro fertilization, gamete intra-fallopian transfer and ovulation induction. Assessment of patients with the aforementioned risk factors should always highlight the potential of heterotopic pregnancy as a diagnosis.

The time of diagnosis of heterotopic pregnancy is quite variable, ranging from 5 to 34 weeks of gestation, with the majority of cases being diagnosed between 5 to 8 weeks of gestation. Diagnosis is made with difficulty due to the asymptomatic nature of the condition. Appropriate diagnosis allows conservative management options to be considered and allows surgical management to be planned. In the case of tubal heterotrophic pregnancy, diagnosis is often completed following tubal rupture and presentation with an acute abdomen, with few cases reported having been diagnosed prior to this. Of note, vaginal bleeding is commonly absent in the clinical setting of heterotopic pregnancy presenting as tubal ectopic pregnancy adding to the difficulty of clinical diagnosis. Clinicians should routinely consider early TVS in those women with known risk factors for heterotopic pregnancy to confirm pregnancy location. Serial serum beta-HCG test to look for the rapid rise in early pregnancy tends to be misleading in the diagnosis of heterotopic pregnancy as substandard hormone production from the ectopic gestation may potentially be masked by the higher placental production from an intrauterine pregnancy and this cannot be reliable.

The gold standard in management of heterotopic pregnancies is surgery by means of laparoscopy or laparotomy, with the surgical approach guided by the clinical scenario. Laparoscopic approaches are ideal to open procedures except in cases of clinical shock with intra-abdominal haemorrhage where laparotomy may be the better suited procedure. In our case report, we opted for laparotomy and left salpingectorny as the patient was haemo-dynamically unbalanced.

CONCLUSION

Heterotopic pregnancy is a potentially life-threatening condition and has a grave implication for both the mother and fetus. High-risk groups warrant early pregnancy ultrasound as a part of routine antenatal care to enable early diagnosis and timely management. However, an absence of risk factors should not equate to exclusion. As highlighted above, it must remain at the forefront of a clinician's diagnosis algorithm in every women as it may occur in the absence of risk factors in a natural conception cycle. Despite it being a challenging diagnosis, clinical acumen along with skilled TVS and appropriate management is able to achieve optimal clinical outcomes.

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