Case Report

Heterotopic Pregnancy — A Diagnostic Challenge

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ABSTRACT

Introduction: Heterotopic Pregnancy is simultaneous presence of single or multiple intrauterine pregnancy along with ectopically located pregnancy, most commonly tubal ectopic. The prevalence in naturally conceived pregnancy is rare, approx. 1 in 30,000 cases. With ART incidence increased to 1 in 100 cases.

The Case: A 23 year primigravida with gestational age of 12 week presented with pain at right iliac fossa and bleeding per vagina for 2 days. On examination, her vitals was stable with mild pallor. Per abdominal examination revealed mc Burney's point tenderness with mild per vaginal bleeding. Patient was scheduled for emergency laparotomy. Intra-operatively it was diagnosed as a case of ruptured tubal ectopic pregnancy with viable intrauterine pregnancy.

Conclusion: Intrauterine pregnancy doesn't rule out the coexistence of another pregnancy on ectopic site. So careful examination is utmost needed during first trimester especially in symptomatic mother.

Introduction

Heterotopic Pregnancy is simultaneous presence of single or multiple intrauterine pregnancy along with ectopically located pregnancy, most commonly tubal ectopic. The prevalence in naturally conceived pregnancy is rare, approx. 1 in 30,000 cases. But with increased number of assisted reproductive technique, incidence of heterotopic pregnancy increased up to 1 in 100 to 1 in 3900 cases. Other risk factors are previous history of ectopic pregnancy, chronic pelvic inflammatory disease, any surgery at adnexal region, failure of contraceptive method such as tubal ligation, intrauterine devices. According to recent data, clomiphene citrate is related to higher risk.

Case Presentation

A 23 year primigravida with gestational age of 12 week presented with pain at right iliac fossa and bleeding per vagina for 2 days. She has been suffering from this type of symptoms on and off for 2 month. She had a history of subfertility which has been treated with ovulation induction with letrozole.

On examination, her vitals was stable with mild pallor. Per abdominal examination revealed mc Burney's point tenderness with mild per vaginal bleeding.

Investigations

Her serial ultrasonography report shows:

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Early scan at 6 week	Single live fetus with corpus luteal cyst on right ovary
Scan at 8 week	Single live fetus with sub chorionic hemorrhage of 1.3* 1.0 cm
Scan at 9 week	Single live fetus, large sub chorionic collection of 6.4685.43 cm. Enlarged appendix with thick irregular echogenic walls and surrounding fluid. Luteal cyst on right ovary
Scan at 10 week (at presentation)	Single live fetus, Sub chorionic hemorrhage of 3.8*2.9 cm. Hypoechoic lesion with ill-defined margin seen in right adnexa 4.9*3.8 cm. ? Hemorrhagic corpus luteal cyst. Mild fluid collection in pouch of Douglas and hepato-renal pouch of Morrison. Right iliac fossa- mild inflammatory changes noted and appendix not visualized separately.
Repeat scan for diagnosis	Single live fetus, Sub chorionic hemorrhage of 6.2*6.9 cm. Right ovary bulky with no vascularity. Suggestive of ovarian torsion. No sign of appendicitis or appendicular abscess.

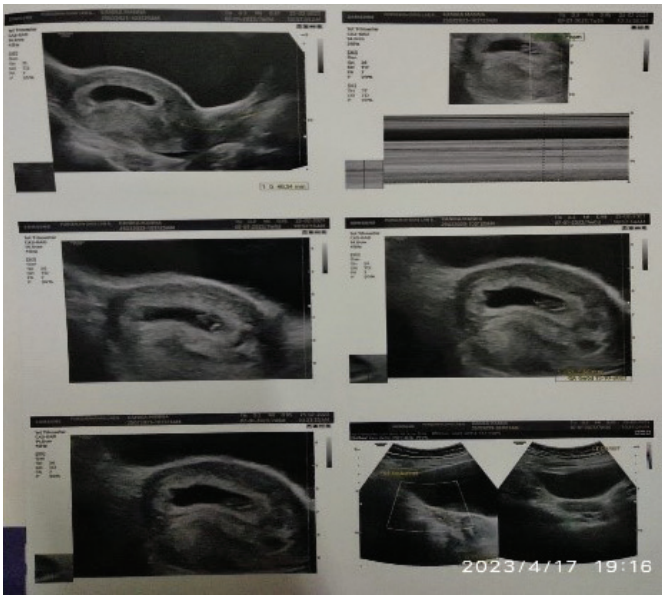

Fig 1: Intrauterine G-sac with adnexal pathology.

Blood investigation: Hemoglobin at presentation was 9.8 but decrease to 6.5

Management: Patient was initially diagnosed as a case of appendicitis or appendicular abscess and decided to manage conservatively. But after USG report of ovarian torsion and falling hemoglobin level the patient was scheduled for emergency laparotomy. Intra-operatively it was diagnosed as a case of ruptured tubal ectopic pregnancy with viable intrauterine pregnancy. Histopathology report of the tubal specimen confirmed the presence of trophoblastic tissue.

Follow up: The patient followed up with serial ultrasonography up to 37 weeks when she has undergone emergency cesarean section with indication of fetal distress and delivered a 2750 gram live baby.

Discussion

Diagnosing and managing heterotopic pregnancy is challenging. The most frequent symptoms includes abdominal pain, adnexal sol with uterine enlargement and vaginal bleeding. Abdominal and pelvic ultrasound very often fail to detect ectopic pregnancy in presence of intrauterine pregnancy because heterotopic pregnancy still considered as a rare case. Therefore, presence of intrauterine pregnancy is not a very reliable indicator to rule out the possibility of ectopic pregnancy.

In terms of management, medical management with systemic methotrexate injection is contraindicated to preserve the intrauterine pregnancy. Surgical method remains the primary treatment approach, although, local KCl injection can be used in certain cases.

Conclusion

Intrauterine pregnancy doesn't rule out the coexistence of another pregnancy on ectopic site. So careful examination is utmost needed during first trimester especially in symptomatic mother.

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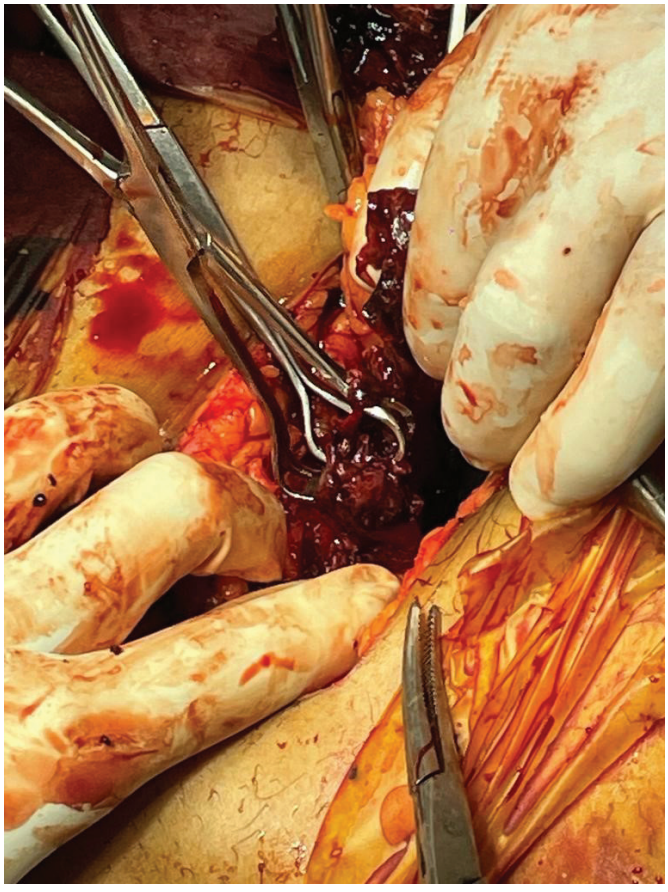

Fig 2: Ruptured ectopic intraoperative view.

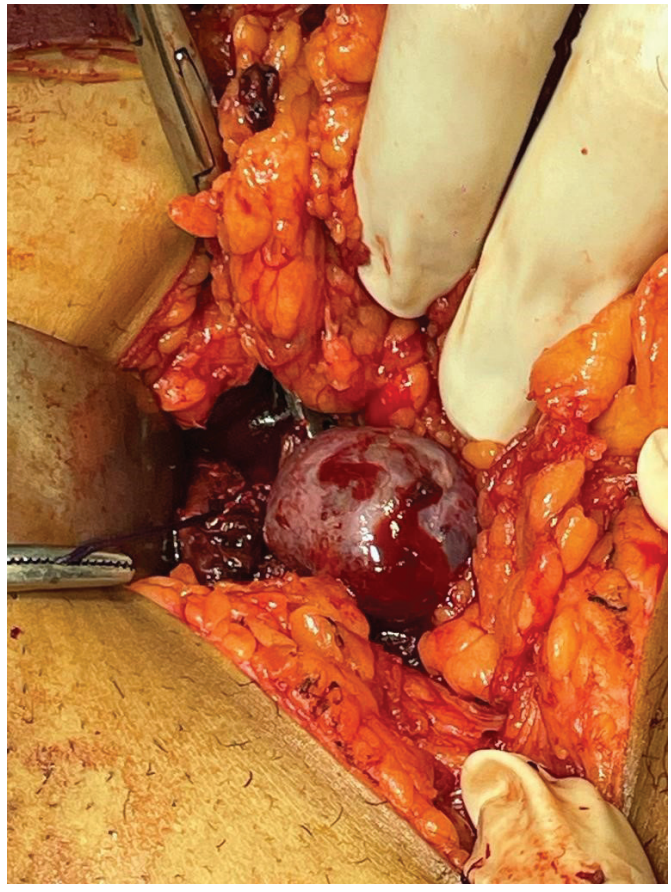

Fig 3: Enlarged gravid uterus with adnexal pathology.