Heterotopic Pregnancy : A Rare Case Report.

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Abstract

This case report describes a 22-year-old primigravida with a spontaneous pregnancy who presented with lower abdominal pain, vaginal discharge, and vomiting. Imaging confirmed a dual pregnancy with a 6-week intrauterine gestational sac and a concurrent ectopic pregnancy in the right adnexal region. The diagnosis and management of heterotopic pregnancies are challenging but crucial for maternal and fetal health. This case highlights the importance of suspecting heterotopic pregnancy in symptomatic pregnant women, utilizing both clinical and imaging assessments to guide timely and effective treatment. Successful management through laparoscopic surgery of the ectopic component while preserving the intrauterine pregnancy usually results in a favourable outcome in these cases.

Keywords:- Heterotopic Pregnancy, Ectopic Pregnancy, Ultrasound, Gestational Sac

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INTRODUCTION

Heterotopic pregnancy is a rare and complex clinical scenario wherein simultaneous intrauterine and extrauterine pregnancies occur.[1] This condition represents a unique diagnostic and therapeutic challenge, with significant implications for maternal and fetal health.[2] While the incidence of ectopic pregnancies is about 1-2% in the general population, heterotopic pregnancies are considerably rarer, occurring in approximately 1 in 30,000 natural conception

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pregnancies. However, the incidence has been noted to increase significantly with assisted reproductive technologies, reaching as high as 1 in 100 pregnancies.[3]

The pathophysiology of heterotopic pregnancy is not completely understood, but it is believed to involve factors that allow for the concurrent development of embryos at two different sites. In cases of natural conception, risk factors may include tubal damage, pelvic inflammatory disease, and previous ectopic pregnancy. The increase in heterotopic pregnancies observed with assisted reproductive technologies may be attributed to multiple embryo transfers and alterations in the endometrial environment that favor implantation at atypical locations.[4]

Clinically, heterotopic pregnancies often present with symptoms typical of ectopic pregnancy, such as abdominal pain and vaginal bleeding, which may initially overshadow the signs of a concurrent intrauterine pregnancy. Diagnosis is primarily made via ultrasound, which can reveal the presence of both an intrauterine and an ectopic pregnancy. The importance of early and accurate diagnosis cannot be overstated, as the management of heterotopic pregnancy involves preserving the intrauterine pregnancy while addressing the ectopic pregnancy, typically via surgical intervention.[5]

CASE REPORT

Our case involves a 22-year-old primigravida woman who presented with a 5-day history of increasing lower abdominal pain, brownish vaginal discharge, and episodes of nausea and vomiting. These symptoms prompted an urgent assessment through both trans-abdominal and endovaginal ultrasound. The patient's medical and surgical history was unremarkable, with no known risk factors for ectopic pregnancy such as pelvic inflammatory disease or previous tubal surgery.

Ultrasound findings revealed a 6-week and 1-day old intrauterine gestational sac, which was a reassuring sign of a viable intrauterine pregnancy. However, a concurrent heterogeneous complex mass was identified in the right adnexal region, raising concerns for a potential ectopic pregnancy (Figure 1).

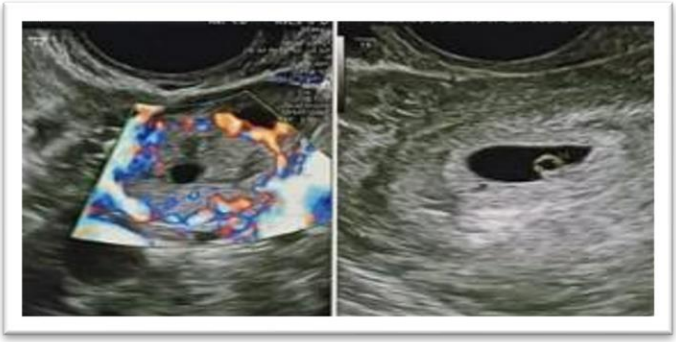

Figure 1:- Intrauterine gestational sac with yolk sac and right anexal mass lesion showing ‘ring of fire’ sign.

Further imaging and diagnostic modalities, including a quantitative beta-human chorionic gonadotropin (beta-hCG) level, were utilized to assess the viability and location of the pregnancies. The patient's beta-hCG levels were found to be disproportionately high relative to the gestational age of the intrauterine pregnancy, which is suggestive but not diagnostic of a heterotopic pregnancy.

Management involved a multidisciplinary approach including obstetricians, radiologists, and surgeons. Laparoscopic surgery was performed to address the adnexal mass, confirming the diagnosis of a right tubal ectopic pregnancy, which was successfully removed. Postoperative management focused on the support and monitoring of the ongoing intrauterine pregnancy, which proceeded without further complications. The outcome was favorable, with the continuation of a healthy intrauterine pregnancy.

DISCUSSION

Heterotopic pregnancy, although rare, presents a significant clinical dilemma. This case underscores the importance of considering this diagnosis in pregnant patients presenting with symptoms indicative of ectopic pregnancy, especially when ultrasound findings do not conclusively exclude additional complicating factors.[6]

A review of literature reveals several similar cases where timely intervention facilitated the continuation of the intrauterine pregnancy while successfully resolving the ectopic pregnancy through surgical means.[7,8]

In cases of heterotopic pregnancies, it is crucial to highlight the role of advanced imaging techniques and the judicious use of surgical intervention that prioritizes the preservation of the intrauterine pregnancy while effectively managing the ectopic component.[9] Comparative analysis with other reported cases indicates a trend towards successful outcomes when heterotopic pregnancies are identified early and managed promptly.[10]

CONCLUSION

Heterotopic pregnancy, while rare, must be considered in the differential diagnosis of pregnant women presenting with symptoms suggestive of ectopic pregnancy. Early diagnosis and appropriate management are critical to achieving favorable outcomes for both the mother and the intrauterine pregnancy.

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