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A Case Report

A SUCCESSFUL PREGNANCY OUTCOME AFTER A HETEROTOPIC PREGNANCY: A CASE REPORT

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ABSTRACT

INTRODUCTION: Heterotopic pregnancy is a rare complication of pregnancy which involves the simultaneous occurrence of intrauterine and ectopic pregnancy. It is associated with various risk factors, and the majority of these pregnancies have a very poor outcome.

METHOD: Here we report a case of a successful pregnancy outcome after a heterotopic pregnancy at Dr. Rajendra Prasad Government Medical College, a government medical college, and hospital in Tanda, District Kangra, Himachal Pradesh.

CONCLUSION: Heterotopic pregnancies are potentially misdiagnosed and discovered at later stages after the rupture of the ectopic arm. Immediate and timely management can result in a successful pregnancy outcome, and a little delay in the above case could have proved fatal. Ultrasound remains the imaging modality of choice in diagnosing a heterotopic pregnancy; however, in carefully selected cases, an MRI with a reported safety in the first trimester can be utilized and may provide added information over ultrasound. Hence, obstetricians and emergency physicians need to keep this possibility in mind while dealing with a pregnant woman coming to the emergency with abdominal pain.

KEYWORDS: Heterotopic pregnancy, Ectopic pregnancy, Complications in pregnancy

INTRODUCTION

Heterotopic pregnancy is a rare complication of pregnancy. The incidence after a spontaneous conception is very rare, about 1:30000, but when using assisted reproductive techniques, it is much higher 1:5000. (1) The most common symptoms seen are abdominal pain 83%, peritoneal symptoms and shock 13% and genital bleeding 50%. (2) There can be serious threat to life due to rupture of extrauterine pregnancy causing massive hemoperitoneum needing immediate surgical intervention. In such cases there is increased chance of miscarriage and preterm birth. (3)

CASE REPORT

A 25-year-old primigravidae with 2 1/2 months of amenorrhea presented to Dr Rajendra Prasad Medical College Tanda on 27th April 2022 with complaints of pain abdomen in the lower abdomen since last 10 days. The pain was mild to moderate in intensity radiating to back and was associated with vomiting. The pain had initially subsided by taking pain killers but now it was persistent. She had visited some private hospital and taken some medication but when the pain continued she came to Dr RPGMC.

She had regular cycles and had been married for two years and this was a spontaneous conception with her urine pregnancy being positive at 7 days overdue. She had visited her nearby primary health centre and was taking tablet Folic acid. There had been no ultrasound scan till now. On examination her pulse was 116/minute, blood pressure was 108/60 mm of Hg, body temperature was 36.8 degree Fahrenheit per abdomen examination tenderness was present over right hypochondrium area and there was no guarding or rigidity. On per speculum examination cervix and vagina were healthy no active bleeding was seen. On per vaginal examination uterus was enlarged to 8.10-week size soft mobile non tender, bilateral fornicial full ness was present, cervical motion tenderness was positive, culdocentesis was positive. Urine pregnancy test was also positive. On TVS scan, there was heterogenous hyperechoic mass lesion of 80mm *42mm in the right adnexa showing minimal internal vascularity with right ovary not being separately visualised. Left ovary was separately visualised with two small cysts. Moderate free fluid with internal echoes seen in the pelvis suggestive of hemoperitoneum with single live pregnancy with crown rump length suggestive of pregnancy of 8 weeks and 4 days. Blood investigations were done which revealed all within normal limits except for Hb which was 8.4 gm%.

A provisional diagnosis of heterotopic pregnancy with ruptured right ectopic pregnancy was made. The patient was immediately taken up for surgery after explaining all the risk to the ongoing intrauterine pregnancy. Intraoperatively a hemoperitoneum of approximately 500 ml was found and a jumbled up mass of 3*2 cm on the right side from which the right ovary could not be separately visualized. A rent of 1*1 cm was present over the mass which was actively bleeding. Right salpingoopherectomy was done along with peritoneal toileting. The uterus was enlarged to 8-week size; post-operative period was uneventful. One unit of whole blood was transfused intraoperatively. Patient was discharged on post-operative day 4 after confirming the viability of intrauterine gestation. Histopathological examination revealed fallopian tube fragment showing decidualisation confirming ectopic gestation.

Her subsequent scan on 11th May for nuchal translucency and nasal bone showed a single live intra uterine pregnancy of 11weeks and 2 days with all normal parameters. Henceforth she came to our hospital regularly for antenatal care and her antenatal period was uneventful. All the subsequent scans were normal.

On 17th of November 2022, at gestation 38 weeks and 2 days she presented to our hospital with complaints of leakage per vagina and so Heterotopic pregnancies are potentially misdiagnosed and discovered at later stages after rupture of the ectopic arm. Immediate and timely management can result in successful pregnancy outcome and a little delay in the above case could have proved fatal. Ultrasound remains the imaging modality of choice in diagnosing a heterotopic pregnancy, however, in carefully selected cases, an MRI with a reported safety in the first trimester can be utilized and may provide added information over ultrasound. Hence obstetricians and emergency physicians need to keep this possibility in mind while dealing with a pregnant woman coming to emergency with pain abdomen went into spontaneous labour.

The intrapartum period was uneventful and she delivered a healthy male child weighing 2710 gms. Post-partum period was also uneventful and she was discharged the next day.

DISCUSSION

Diagnosing an ectopic pregnancy is in itself a challenge but diagnosing a heterotopic pregnancy poses a bigger diagnostic challenge as serial b HCG levels become irrelevant here. Early diagnosis of an ectopic pregnancy is possible due to a combination of ultrasound and serum measurements β-hCG. Unfortunately, in heterotopic pregnancies, both concepts; the doubling time and discriminatory zones, commonly used in early diagnosis of ectopic pregnancy, are unlikely to be helpful, thus posing an increased risk of misdiagnosis, with a third to half of heterotopic pregnancy cases thus presenting late and have already ruptured before a diagnosis was made. (4-5) The level of serum β-hCG inheterotopic pregnancy represents the combined contribution of both the intrauterine (mainly) and extrauterine pregnancy and are unlikely to be of clinical use for the diagnosis of a heterotopic pregnancy. Although ultrasound remains the main imaging modality in ectopic and HP pregnancies, a subset of patients may need further imaging using MRI to provide additional information. (3) Any treatment for heterotopic pregnancy should aim to target the ectopic pregnancy, selectively, without harmful effects to the ongoing intrauterine pregnancy. With this concept in mind, systemic methotrexate is contraindicated with a viable intrauterine pregnancy. Surgical approach is the mainstay of treatment which can be either laparoscopic (preferred option) or laparotomy (depending on the clinical condition and expertise) and undertaking a salpingectomy (usually if the other tube is normal) or salpingotomy. (6) Another advantage of the surgical approach is that laparoscopy (or laparotomy) can confirm the diagnosis in addition to providing a definitive treatment. Although salpingotomy has an established role in ectopic pregnancy, it's role in heterotopic pregnancy may not be similar for 2 reasons. Firstly, there is a risk of around 21% of a repeat operation via salpingectomy due to persistent tubal bleeding and this risk should not be taken lightly with a remaining ongoing intrauterine pregnancy. (7)
Secondly, as opposed to salpingectomy, a salpingotomy carries the additional risk of persistent trophoblasts of around 7% which is unlikely to be followed up by β-hCG due to the concurrent intrauterine pregnancy, nor treated with systemic methotrexate for the same reason. (8)

CONCLUSION

Heterotopic pregnancies are potentially misdiagnosed and discovered at later stages after rupture of the ectopic arm. Immediate and timely management can result in successful pregnancy outcome and a little delay in the above case could have proved fatal. Ultrasound remains the imaging modality of choice in diagnosing a heterotopic pregnancy, however, in carefully selected cases, an MRI with a reported safety in the first trimester can be utilized and may provide added information over ultrasound. Hence obstetricians and emergency physicians need to keep this possibility in mind while dealing with a pregnant woman coming to emergency with pain abdomen.

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Figure I: USG at 9 weeks of gestation

Figure II: 11 weeks of intrauterine live pregnancy

Figure III: 28 weeks of intrauterine
live pregnancy