Faridpur Med. Coll. J. 2025;20(2):57-59 DOI: https://doi.org/10.3329/fmcj.v20i2.83151

Case Report

Heterotopic Pregnancy: a Case Report

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Abstract:

Heterotopic pregnancy is defined as the coexistence of intrauterine and extra uterine gestation. The incidence is rare and estimated to be 1 in 30,000 of spontaneous pregnancies though it is becoming commoner with assisted reproductive technique. It can be a life threatening condition and can be easily missed with the diagnosis being overlooked. We present a rare case of spontaneous heterotopic pregnancy composed of missed abortion and ruptured left adnexal gestation.

Keywords: Heterotopic pregnancy, Ruptured ectopic.

Introduction:

Heterotopic pregnancy is defined as the coexistence of intrauterine and extrauterine gestation. It is a rare occurrence. It was first reported in 1708 by Duverney as an incidental finding of intrauterine pregnancy while doing Anam autopsy of a patient who died due to ruptured ectopic pregnancy. The incidence in the general population is estimated to be 1 in 30,000 while a rate as high as 1 in 8000 has been reported.[1] However in the last decades there has been a significant increase of ectopic pregnancy and a subsequent increase of Heterotopic pregnancy. This raised frequency has been attributed to several factors including higher incidence of PID and the extended use of assisted reproductive technologies.

Case Report:

Mrs. Hosneara, 32-year-old lady second gravida having 1 alive child by caesarean section was referred to our institute as a case of early pregnancy with acute abdomen. She was pregnant for 10 weeks. She had been suffering from severe lower abdominal pain associated with vomiting for 2 days. Pain was agonizing, non-radiating, of moderate to severe intensity and associated with vomiting. It was her planned pregnancy but she didn't go for ANC before. She underwent caesarean section 8 years ago. She was normotensive, non-diabetic with no significant personal history. Her previous pregnancy and puerperium period was uneventful. She was duly immunized as per EPI schedule. She had no significant drug history. On general examination, she looked pale& anxious,

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moderately anemic, BP was 90/60 mmHg, pulse was 104 b/min, cold & clammy skin. On per abdominal examination abdomen was tense with severe tenderness in left iliac region. On per speculum examination, posterior fornix was bulged and bluish. On bimanual examination os was parous and uterus was anteverted with 10 weeks size, tenderness and fullness in left and posterior fornix, right and anterior fornix was normal. Other systemic examination revealed no abnormality.

Emergency investigations were done and ultrasound showed about 9+ weeks of missed abortion and left adnexal cystic mass with large blood clot with moderate hemoperitoneum, suggestive of ruptured left adnexal cystic mass with moderate pelvic fluid. Her HB was 8.9gm/dl.

Decision for exploratory laparotomy was made in view of suspected ruptured ectopic pregnancy.

Intraoperatively there was hemoperitoneum about 500cc. Uterus enlarged to 10 week size. A left tubo-ovarian mass of 6-7 cm was adherent to posterior surface of uterus. Left salpingo- oophorectomy was done and turbo ovarian mass containing clots and fetal tissue was sent for histopathological examination.

D & C was done in same setting for missed abortion. Moderate amount of product was expelled out and sent for histopathological examination.

Two units of whole blood was transfused post operatively. Her postoperative period was uneventful and she was discharged on 5th day.

Histopathological examination showed fallopian tube fragment showing features of decidualisation confirming ectopic gestation.

Specimen of uterine product was also showing products of conception.

Discussion:

Heterotopic pregnancy is defined as a multiple gestation with one embryo inside the uterus and the other one elsewhere. This condition has become more and more common and relevant because of widespread assisted reproductive technologies (ARTs) and ovarian stimulation for infertility treatment.[2,3] Other risk factors for HP are pelvic inflammatory disease (PID), pelvic surgery and previous fallopian tube damage or pathology.[3] Our patient did not have these risk factors and conceived spontaneously, which makes this case very rare and hard to detect.

In 95% of cases, the EP occurs in the fallopian tube[4], but it can also be found in the cervix, scar from a prior cesarean section, and the interstitial segment of a fallopian tube, ovary, peritoneal or abdominal cavity.[5] The apparent increase in the incidence of non-tubal EPs including HP may be attributed to the higher number of pregnancies after in vitro fertilization treatment.[4] Our case described a case of an EP in the left fallopian tube.

Tap J et al reported that 70% of all HP cases are diagnosed between five and eight weeks of gestation, 20% between 9 and 10 weeks, and only 10% after the 11th week.[2] Symptoms of heterotopic pregnancy are nonspecific. Heterotopic pregnancy can be asymptomatic in 24% of cases.[6,7] Abdominal pain is the most frequent symptom of HP, though vaginal bleeding and hypovolemic shock are also common.[6,7] Vaginal bleeding and hypovolemic shock often indicate the rupture of the ectopic pregnancy and require urgent treatment.

The early diagnosis of heterotopic pregnancy is challenging because a raised serum B HCG level and an intrauterine embryo seen on ultrasonography lead one to think about normal pregnancy and almost no one examines for an ectopic pregnancy if the patient is asymptomatic. When an intrauterine embryo is found, it's is crucial to inspect the adnexa of the uterus and to record it. The identification of an ectopic pregnancy on ultrasonography has a reported sensitivity and specificity of 71-100% and 41-99%, respectively.[8] Almost half heterotopic pregnancy cases are detected during emergency Laparotomies due to tubal ruptures[6]. Combined serum B HCG measurement and TVS improve the diagnostic sensitivity of HP[3]. TVS has been found to be better in early diagnosis compared to trans-abdominal ultrasonography. It detects almost 70% of cases between fifth and eighth weeks of gestation.[9]

Treatment possibilities include expectant management, surgical management (either laparoscopy or laparotomy), and ultrasonography guided embryo aspiration with or without embryo killing drugs.[3,10]

Treatment depends on the patient's condition, the size and site of an EP, previous pregnancies, the viability of intrauterine and extrauterine gestation, and the expertise of the physicians. Expectant management can be selected in symptom free patients where the uncultured ectopic embryo has a limited craniocaudal length with no cardiac activity and a decreasing level BHCG.[11] Though the trans abdominal ultrasonography guided aspiration of an EP has the best maternal outcome and the lowest abortion rate, it should only be chosen as a treatment option when the ectopic gestational sac is clearly visualized.[10] For patients with unstable hemodynamics or with any signs indicating the rupture of extrauterine pregnancy, emergency surgery is strongly recommended.[10] The advantage of surgical treatment is the ability to completely remove an EP, but there might be a higher abortion rate of an IU embryo.10 In their study, Li JB et al found that the total abortion rate was 26.56% in all heterotopic pregnancy patients and the abortion rate in surgery management group was 25.93%.[10] In our case, an urgent left salpingectomy was chosen due to the free intra peritoneal fluid in the pelvic cavity and the suspicion of the rupture of the EP.D&C done for the missed abortion. About 60-70% of HP cases result in live childbirth with outcomes similar to that of singleton pregnancies.[4]

Conclusion:

In the case of ectopic pregnancy undergoing surgical management, intrauterine device such as uterine manipulator should be generally avoided due to the likelihood of coexistence of early intrauterine pregnancy that is not visualized by ultrasound. In the case of confirmed intrauterine pregnancy with abdominal pain, further workup and close monitoring should be considered to rule out heterotopic pregnancy especially after ART techniques.

Conflict of interest:

There is no conflict of interest

Acknowledgement:

Gratefully acknowledge the thoughtful comments of our teacher, colleagues. We are deeply grateful to our patient and their family members.

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