Case Report

Heterotopic Pregnancy: A Clinical Case Report

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Abstract

Heterotopic pregnancy is coexistence of intrauterine and extrauterine pregnancies that is ectopic pregnancies. It is said to be rare. Here we report a case of 27 years old woman with heterotopic pregnancy. Patient had a typical presentation of severe lower abdominal pain following amenorrhoea for 2½ months. On clinical examination, there was suspicion of ectopic pregnancy but ultrasonography revealed early intrauterine pregnancy along with right tubal pregnancy with huge collection in abdomen . Immediate laparotomy was done and diagnosis was confirmed as a case of heterotopic pregnancy.

Introduction

Naturally occurring heterotopic pregnancy is rare. Its incidence is 1 in 30,000 pregnancies. 1 But now a day it is found to be increasing as 1 in 300 pregnancy with the rising incidence of ectopic pregnancies due to increased risk factors and expansion in assisted reproductive technologies (ART) in infertile couples, such as in vitro fertilization (IVF) and gamet intra fallopian transfer (GIFT). 2,3

Case Report

A 27 years old primi patient was brought in our hospital in semi conscious state with a history of fall and amenorrhoea for 2½ months followed by severe lower abdominal pain for last two (2) days. Her pregnancy was confirmed by immunological test. Previously, her menstrual cycle was regular and she was married for two (2) years. Onresuscitation, she complained of severe pain in the abdomen with variable intensity and right shoulder pain associated with intermittent vomiting, weakness, giddiness and profuse sweating. There was no history of per-vaginal bleeding. Examination revealed an extremely pale individual with cold clammy skin, thready pulse of 140 beats per minute and blood pressure of 70/40 mm of Hg.There was abdominal distension with tenderness and guarding. The flanks were full.

Uterus was not palpable per abdomen and bimanual pelvic examination revealed no active pervaginal bleeding. Fornices were full with tender cervical movements. A clinical diagnosis of ruptured ectopic pregnancy was made. Her blood group was O-Positive hemoglobin 7gm/dl, pack cell volume 23%, RBS 7.5 gm/dl and pregnancy test was positive. Immediately patient was resuscitated with intravenous fluids and transfused with one unit of whole blood.

Pelvic ultrasonograhpy revealed a 9 weeks live intra uterine pregnancy with right sided tubal pregnancy. There was massive fluid collection in peritoneal cavity. Internal hemorrhage due to ruptured ectopic pregnancy coexisting with an intra uterine pregnancy was considered. The patient was subsequently prepared for laparotomy.

Finding at laparotomy were:
Massive hemoperitoneum of 1.5 liter clotted and non-clotted blood.
A badly ruptured ectopic pregnancy at ampullary region of right fallopian tube, still oozing blood.
Uterus was bulky soft and intact.
Left fallopian tube was normal healthy looking and both ovaries were also healthy

Right sided salphingectomy was performed because of apparently damaged tube. After proper hemostasis peritoneal toileting was done. Intra and post operatively patient wastransfused with 3 units of whole blood. The patient sustained clinical improvement throughout her post operative period. Her recovery was uneventful. Before discharge, her pelvic ultra sound was done which revealed viable

intra uterine pregnancy of 10 weeks gestation. She was seen in follow-up a week after discharge. At that time she was healthy looking and advised for regular baby by caesarian section and both mother and the baby were well and healthy.

Discussion

Along with the general increase in incidence of tubal ectopic pregnancies, there has been an increase in heterotopic pregnancy. Recurrent pelvic inflammatory disease (PID) leads to blockage of fallopian tube which predispose to ectopic pregnancy.4 Abnormal length of the tube, adhesions etc may be other causes. Incidence of heterotoic pregnancies are reported following assisted reproductive techniques. But heterotopic pregnancy following a spontaneous conception along with salvage of a live healthy baby following such massive hemoperitoneum and anaesthetic exposure is not verycommon.3,5 Sometimes the diagnosis of heterotopic pregnancy is initially missed due to confusing clinical features especially when diagnostic facilities are not available.6 The urine forpregnancy test was done which suggest ectopic pregnancy but it did not rule out the possibility of a simultaneous intrauterine with extrauterine pregnancy. Sonographic diagnosis of heterotopic pregnancy is possible but not always so. The identification of a live embryo within a gestational sac outside the uterus is the gold standard for the sonographic diagnosis of ectopic pregnancy. The echogenecity of an adenexal mass may help distinguish the tubal ring of an ectopic pregnancy from corpus lutum. The tubal ring of an ectopic pregnancy is usually more echogenic than ovarian parenchyma, and the corpus luteum is usually equal to or less echogenic than ovary. Whenever, confusion arises regarding the intra of an extra uterine pregnancy it is always a wise decision to approach for transvaginal sonography (TVS) that has a specificity of 73.7% and positive predictive value of 89.8%.7 Laparoscopy on the other hand, could be helpful in establishing the diagnosis. Now a day, large number of cases are being diagnosed as well as treated simultaneously with laparoscopy. Magnetic Resonance Imaging (MRI) has high suspicion of ectopic or heterotopic pregnancy where transvaginal sonography does not point to the accurate location of pregnancy and in situations where laparoscopy is contraindicated or not available.8 However, such a siagnostic device is not always available is not always available in our practice.

Thought the history and clinical examination as well as fluid aspirated from from the Morison's pouch give a clue and untasonography report confirmed the diagnosis on heterotopic pregnancy, this was far from thought as it is such a rare event that we hardly come across.9 As the diagnosis was obvious, prompt surgical intervention was done. We arranged urgent laparotomy, right salphingectomy was carried out because of the apparently damaged tube. Furthermore other tube was normal, so conservative surgery was not required in the involved tube.

The main challenge in this case of heterotopic pregnancy course and outcome.10 The patient was given progesterone supplement, adequate est. She was discharge in a stable condition and advised for regular antenatal check-up.

Conclusion

A high index of clinical suspicion is required for the early diagnosis of heterotopic pregnancy while evaluating a patient with pain in lower abdomen even is face of documented intrauterine pregnancy. An early diagnosis by frontline doctor and prompt intervention or immediate referral at the very first sight of heterotopic pregnancy is a must to salvage the intrauterine pregnancy and avoid missing the potentially life threatening condition that an lead to maternal morbidity and mortality.

References

1. Reece EA, Petrie RH, Sirmans MF, Finster M and Todd WD. Combined intrauterine and extra uterine gestations: a review. American Journal of Obstetrics and Gynaecology 1983; 146; 323-330.

2. Tat J, Hadad S, Gordon N, Timor-Trisch I. Heterotopic pregnancy after ovulation induction and assisted reproductive technologies: a literature review from 1971 to 1993. Fertility and Sterility 1996; 66: 1-12.

3. Sucov A, Deveau L, Feola P, Sculli L. Heterotopic pregnancy after in-vitro fertilization. American Journal of Emergency Medicine 1995; 13 (6): 641-645.

4. Tenore JL. Ectopic pregnancy: problem-oriented diagnosis. American Family Physician 2000; 61: 1080-1088.

5. Wong CM, Ganesh R, Nq KY. Ectopic pregnancy: uncommon presentations with difficulty in diagnosis. Medical Journal of Malaysia 1999; 54 (1): 117-119.
6. Lam MP, Ligrid Hung LOK, Shing-Kai YIP. Two cases of heterotopic corneal pregnancy with initially missed diagnosis. Australia and New Zealand Journal of Obstetric and Gynaecology 2004: 44(3): 256-259.
7. Raine-Fenning N, Fleischer AC. Clarifying the roles of three dimensional transvaginal sonography in reproductive medicine: an evidence based appraisal. Journal of Experimental Clinical Assisted Reproduction, 2005; 2: 10.
8. Wooley FJ. Re: Any explanation? (Homepage on internet) 1999. Available: http://forums.obgyn.net/ob-gyn-1/OBGYNL.9911/subject.html#34 (Accessed 12 February 2010).
9. Adekanle DA, Ekomaye H, Olitan PB. Heterotopic Pregnancy with a live female infant: a case report. The Interner Journal of Gynecology and Obstetrics. (Homepage on internet) 2007; 7(1). Available: http://www.ispub.com/ostia/index.php?zmlFilePath=journals/ijgo/vol7nl/heterotopic.xml (Accessed 8 September 2009).
10. El-Nafaty AU, Melah GS, Massa AA, Yahaya UR, Bukar M, Kizaya DD. Heterotopic pregnancy in a natural conection cycle. A case report. Nigerian Journal of Clinical Practice 2005; 8(2): 128-129.