VOLUME - 10, ISSUE - 06, JUNE- 2021 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper

Gynecology

SPONTANEOUS HETEROTOPIC PREGNANCY WITH UNSTABLE VITALS: A CASE REPORT

Dr. Anshika Agarwal

Post Graduate Student, MGM Hospital for Women and Children Sector 4E Kalamboli 410218.

ABSTRACT

A spontaneous heterotopic pregnancy is a rare obstetric entity which can be life threatening if early diagnosis is missed. There is co-existing intra uterine and extra uterine pregnancy, most often tubal and rarely cervical or ovarian. It is extremely rare in spontaneous conception but incidence is increasing with the use of ART's. Early diagnosis is difficult probably because of the lacking clinical symptoms. It usually presents as a ruptured ectopic pregnancy. Timely diagnosis and intervention is of utmost importance to prevent maternal morbidity and mortality. Abdominal pain, swelling, peritoneal irritation, enlarged uterus, vaginal bleeding, pallor, tachycardia, features of shock may be a few presenting features. With the advances in technology, transvaginal ultrasound proves to be a great diagnostic tool in early diagnosis of heterotopic pregnancy. Serum beta-hcg levels is of importance. Intervention can be medical or surgical depending on the hemodynamic condition of the patient and the viability of the intrauterine pregnancy. Heterotopic pregnancy is an unusual diagnosis and so is often ignored in the presence of an intrauterine pregnancy. But as it can prove to be life threatening so its diagnosis as a differential should always be kept in mind. Early diagnosis and prompt and effective treatment can save a life or two!

KEYWORDS : Heterotopic, Spontaneous, Rupture, Laparotomy.

INTRODUCTION:

Heterotopic pregnancy (HTP) refers to the presence of simultaneous pregnancies at two different implantation sites,[1,2] with most commonly one being an intra– uterine site and the other an ectopic often in the fallopian tube and uncommonly in the cervix or ovary.[3-5] In a natural or spontaneous conception , heterotopic pregnancy rare, occurring in <1/30,000 pregnancies.[6-8] However, with the increasing use of assisted reproduction techniques, the incidence increases to 1/100 to 1/500.[9,10] It occurs in 5% of pregnancies achieved after in vitro fertilization.[11]

It should be suspicious in women with risk factors for ectopic pregnancy and also in low-risk women with IU gestation who have free fluid with or without an adnexal mass or in those presenting with acute abdominal pain and shock.[12] The ectopic component is usually treated surgically and the IU one is expected to continue normally, if viable.

With the advanced use of technology and easy availability of transvaginal ultrasound, its diagnosis can and should easily be made.

There are various management modalities for heterotopic pregnancy including medical like use of systemic methotrexate in case of non-viable intra uterine pregnancy or local injection of potassium chloride and also surgical when the patient is haemodynamically unstable.

Case report:

A 25 year old, Gravida 3 abortion 2, came to the hospital in a "very ill looking" state with 2 months of amenorrhoea and complains of severe pain in the abdomen and minimal vaginal bleeding since around 2-3 hours. Pain was severe in intensity and located in the lower abdomen leading to breathing discomfort. This was a spontaneous conception and she has a history of 2 spontaneous miscarriages one at around 8 weeks gestation, 1 year back for which dilatation and evacuation was done and it was not investigated and other at 10 weeks, 6 months back with the same procedure done. No family history or personal history significant to the case was elicited.

On examination, patient was conscious and oriented to time, place and person. Signs of dehydration and pallor was present. Laboured breathing could be seen. Patient was a febrile, pulse was around 120 bpm, blood pressure 100/60 mmhg, saturation on room air was 95% and respiratory rate was 20 breaths/min.

Per abdominally, tenderness found in the right iliac fossa and hypogastrium region with muscle guarding.

Per speculum examination revealed cervix and vagina to be healthy and presence of slight brownish discharge.

Per vaginal examination- uterus size corresponding to approximately 8 weeks with cervical motion tenderness and right forniceal tenderness.

Investigations:

Ultrasound revealed the presence of a single intra uterine gestation with crown rump length of 11mm with no cardiac activity with a normal yolk sac and decidual reaction suggestive of missed abortion. Also there was presence of mild to moderate free fluid in the abdomen with diffuse low level echoes suggestive of hemoperitoneum.

Urine pregnancy test was positive. Hb- 9g/dl, TLC- 23900/cubic mm, platelet count-245000/cubic mm.

Serum B-hcg= 84450IU/L. Rest of the investigations were within normal limits.

Diagnosis:

25 year old G3A2 with spontaneous heterotopic pregnancy with signs of ruptured ectopic.

Differential diagnosis which were considered:

1. Ruptured ectopic pregnancy
2. Threatened abortion
3. Missed abortion
4. Acute appendicitis with perforation
5. Ruptured ovarian cyst

Intervention:

With informed consents taken from the patient and relatives after explaining the condition and adequate blood sent for grouping and cross matching , patient was prepared for exploratory laparotomy. Intra operatively, a ruptured right tubal ectopic pregnancy with hemoperitoneum was seen. A right salpingectomy was done and hemoperitoneum was suctioned out which approximated to be around 1.5 litres. 2 pint PCV was transfused intra operatively. The entire

abdominal cavity was visualised and found to be normal. Haemostasis achieved and an intraperitoneal drain kept in situ and abdomen closed in layers.

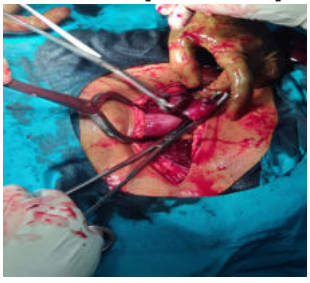
Patient was then given lithotomy position and a D&C was done. Products of conception was curetted out and both the samples were sent for histopathological examination.

Follow up and outcome:
Patient tolerated the procedure well and was discharged on post-operative day 5 with no complains. Patient was reassured and counselled during her hospital stay regarding her future pregnancy to enhance early recovery.

Follow up with serum b-hcg levels after 1 week was done which was found to be 85IU/L with no clinical complaints. Repeat b-hcg after 1 week was found to be negative.

Histopathological report was consistent with ruptured tubal ectopic in the first sample and the endometrial sample showed chorionic villous structures with clusters of trophoblastic cells. Patient was advised regarding the use of contraceptives and also about pre- conceptional counselling.

Image: ruptured tubal ectopic with hemoperitoneum



DISCUSSION:

Strengths: Early diagnosis and prompt intervention in this case led to early recovery of the patient. Had it been delayed there would be chances of further severe hemoperitoneum and collapse of the patient with shock.

Limitations:
Procedure could have been done laparoscopically which would have prevented the patient from getting a scar.

Discussion with literature:
Heterotopic pregnancy (HTP) refers to the presence of simultaneous pregnancies at two different implantation sites,[1,2] with most commonly one being an intra– uterine site and the other an ectopic often in the fallopian tube and uncommonly in the cervix or ovary.[3-5]

Tal et al.[9] reported that 70% of the heterotopic pregnancies were diagnosed between 5 and 8 weeks of gestation, 20% between 9 and 10 weeks and only 10% after the 11th week.

Heterotopic pregnancy can have various presentations. It should be considered more likely (a) after assisted reproduction techniques, (b) with persistent or rising chorionic gonadotropin levels after dilatation and curettage for an induced/spontaneous abortion, (c) when the uterine fundus is larger than for menstrual dates, (d) when more than one corpus luteum is present in a natural conception, and (e) when vaginal bleeding is absent in the presence of signs and symptoms of ectopic gestation.[14]

The increased incidence of multiple pregnancy with ovulation induction and IVF increases the risk of both ectopic and heterotopic gestation. The hydrostatic forces generated during embryo transfer may also contribute to the increased risk.[13]

Intrauterine gestation with haemorrhagic corpus luteum can simulate heterotopic/ectopic gestation both clinically and on ultrasound.[15]

Any other surgical condition presenting as acute abdomen can also simulate heterotopic pregnancy clinically and hence its clinical diagnosis is extremely difficult. Bicornuate uterus with gestation in both cavities may also simulate a heterotopic pregnancy.[15]

There are various management modalities for heterotopic pregnancy including medical like use of systemic methotrexate in case of non-viable intra uterine pregnancy or local injection of potassium chloride and also surgical when the patient is haemodynamically unstable.

Anti D immunoglobulin is given if mother is Rh negative.

Take home message:
As obstetrics is a branch of giving birth to life, each case should be dealt with caution and heterotopic pregnancy being rare should be kept in mind as a differential. Early and timely diagnosis and simultaneous intervention is of utmost importance in saving these lives!

REFERENCES:

1. Reece EA, Petrie RH, Sirmans MF, Finster MF, Todd WD, et al. Combined intrauterine and extrauterine gestations: a review. Am J Obstet Gynecol 1983; 146: 323–30. [PubMed] [Google Scholar]
2. Rojansky N, Schenker JG. Heterotopic pregnancy and assisted reproduction – an update. J Assist Reprod Genet 1996; 13: 594. [PubMed] [Google Scholar]
3. Govindarajan MJ, Rajan R. Heterotopic pregnancy in natural conception. J Hum Reprod Sci. 2008; 1:37–8. [PMC free article] [PubMed] [Google Scholar]
4. Hirose M, Nomura T, Wakuda K, Ishguru T, Yoshida Y. Combined intrauterine and ovary pregnancy: A case report. Asia Oceana J Obstet Gynaecol. 1994; 20:20–5. [Google Scholar]
5. Peleg D, Bar-Hava, Neaman-Leaven M, Ashkena, Ben- Rafaelz J. Early diagnosis and successful non-surgical treatment of viable combined intrauterine and cervical pregnancy. Fertil Steril. 1994; 62:405. [PubMed] [Google Scholar]
6. Ludwig M, Kaisi M, Bauer O, Diedrich K. Heterotopic pregnancy in a spontaneous cycle: do not forget about it. Eur J Obstet Gynecol Reprod Biol. 1999; 87:91–103. [PubMed] [Google Scholar]
7. Jerrard D, Tso E, Salik R, Barish RA. Unsuspected heterotopic pregnancy in a woman without risk factors. Am J Emerg Med. 1992; 10:58–60. [PubMed] [Google Scholar]
8. Schellpfeffer MA. A spontaneous combined (heterotopic) pregnancy: a case report. Wis Med J. 1992; 91:482–4. [PubMed] [Google Scholar]
9. Tal J, Haddad S, Gordon N, Timor-Tritsch I. Heterotopic pregnancy after ovulation induction and assisted reproductive technologies: a literature review from 1971 to 1993. Fertil Steril. 1996; 66:1–12.[PubMed] [Google Scholar]
10. Habana A, Dokras A, Giraldo JL, Jones EE. Cornual heterotopic pregnancy: contemporary management options. Am J Obstet Gynecol. 2000; 182:1264–70. [PubMed] [Google Scholar]
11. Cohen J, Mayaux MJ, Guihard-Moscato MI, Schwartz D. In vitro fertilization and embryo transfer, a collaborative study of 1163 pregnancies to the incidence and risk factors of ectopics pregnancies. Hum Reprod. 1986; 4:255–8. [PubMed] [Google Scholar]
12. Reece EA, Petrie RH, Sirmans MF, Finster M, Todd WD. Combined intrauterine and extrauterine gestations: a review. Am J Obstet Gynecol. 1983; 146:323–30. [PubMed] [Google Scholar]
13. Lyons EA, Levi CS, Sidney M. In: Dashefsky in diagnostic ultrasound. 2nd ed. Rumak CM, Wilson SR, Charboneau WK, editors. Volume 2. Mosby; 1998. p. 999. [Google Scholar]
14. Ectopic Pregnancy, text book of -Williams Obstetrics. 21st ed. Multifetal Ectopic Pregnancy in Chapter 34; pp. 888–9. [Google Scholar]
15. Sohail S. Haemorrhagic corpus luteum mimicking heterotopic pregnancy. J Coll Physicians Surg Pak. 2005; 15:180–1. [PubMed] [Google Scholar]