

Heterotopic Pregnancy: A Case Report

Sadia Tamanna^{1*} Jahanara Begum² Fatema Johora³ Hasna Jahan⁴

ABSTRACT

Background: Heterotopic pregnancy is a rare condition posing diagnostic and therapeutic challenges for obstetricians. The incidence with natural conception is 1: 30,000 pregnancies and assisted reproductive techniques is regarded as a predisposing factor. Medical and surgical modalities have been practiced for management of heterotopic pregnancy. The purpose of the study to disseminated our knowledge and experience about clinical presentation diagnosis, management and outcome of heterotopic pregnancy for the readers in future references.

Case Presentation: We report a case of heterotopic pregnancy in a 30 years old female who had history of induced abortion in first trimester and later chronic ectopic pregnancy was diagnosed. Laparotomy followed by left-sided tubectomy was done.

Conclusion: In women admitting with abdominal pain after abortion, a careful ultrasonographic assessment of the adnexal areas should be performed and heterotopic pregnancy might be considered as differential diagnosis.

KEY WORDS

Chronic ectopic pregnancy; Heterotopic pregnancy; Tubectomy.

INTRODUCTION

Heterotopic pregnancy alludes to the presence of simultaneous pregnancies in two distinctive implantation sites, usually one intrauterine pregnancy and one extra-uterine pregnancy (Ectopic pregnancy). It is a rare condition among women who conceive naturally.^{1,2} The incidence with natural conception is 1:30,000 pregnancies.^{3,4} Although the incidence is increasing with widespread use of ovulation induction and Assisted Reproductive Techniques (ART) there may not present any predisposing risk factor for heterotopic pregnancy.³⁻⁸ So, it is compulsory to scan every early pregnancy thoroughly with ultrasound to adequately investigate the ovaries and adnexae for timely diagnosis and suitable management if any pregnancy complications arise.³ There are only a few reported methods for management of a heterotopic

cervical pregnancy with preservation of intrauterine gestation. Management of heterotopic pregnancy is still a gray area. We report a case of heterotopic pregnancy in a 30 years old female who underwent laparotomy for clinical management.

CASE REPORT

A 30-year-old Bangladeshi woman, gravida 3, para 2, took misoprostol (Abortifacient drug) orally on 7th July, 2018 to induce abortion of unwanted pregnancy without consulting any qualified physician. It was documented by transabdominal Ultrasonography (USG) revealing about 8 weeks of early pregnancy (Report of USG was not available). She got admitted in M Abdur Rahim Medical College and Hospital, Dinajpur on 2nd September 2018 with chief complain of irregular per vaginal bleeding for last 2 months associated with dull aching lower abdominal pain which was started 7 days after taking misoprostol.

Her menstrual cycle was irregular, average in amount, lasting for 3-4 days. She couldn't mention her Last Menstrual Period (LMP). The patient underwent 2 previous cesarean sections, both children were alive and age of last child was 5 years. There was no history of chronic disease (Hypertension, diabetes mellitus and bronchial asthma) or Pelvic Inflammatory Disease (PID). Patient took Oral Contraceptive Pill (OCP) irregularly. On admission, her blood pressure was 110/60 mm Hg, pulse 74 beats/min and temperature 98.4⁰ F.

On physical examination, the abdomen was soft, non-tender and a lump was felt in the right side of lower abdomen, about 4x3 cm, surface was irregular, firm and

1. ☐ Assistant Registrar of Obstetric and Gynecology
☐ M Abdur Rahim Medical College and Hospital, Dinajpur.

2. ☐ Associate Professor of Obstetric and Gynecology
☐ M Abdur Rahim Medical College and Hospital, Dinajpur.

3. ☐ Associate Professor of Pharmacology
☐ Army Medical College Bogura.

4. ☐ Associate Professor of Community Medicine
☐ Army Medical College Bogura.

*Correspondence : Dr. Sadia Tamanna
Email: tsadia25@yahoo.com
Cell : +88 01723 54 57 63

Date of Submitted : 18.03.2020

Date of Accepted : 30.04.2020

fixed with underlying structure. Gynecological examination revealed that perineum and valva were similar to nulliparous, smooth walled vagina and brownish discharge in vagina visible in speculum examination, with no symptoms of active bleeding from cervix. Bimanual examination revealed that uterus was ante-flexed, slightly tender, right and posterior fornix was full, there was a mass in right side of lower abdomen, adjacent to uterus and lower end of mass was palpable.

Laboratory tests on admission: Hb%: 9.5 gm/dl, total WBC count: $11.3 \times 10^3/\mu\text{l}$, HCT: 31.8%, serum beta HCG: 16 mIU/ml. Transabdominal USG stated empty uterine cavity with a complex mass on right adnexa, some fluid in the pouch of Douglas. Because of the suspicion of chronic ectopic pregnancy, decision was



Figure 1 Adnexal mass during laparotomy

taken for surgical management. On the 7th September, 2018, laparotomy was performed and following was stated intraoperatively: body of uterus enlarged, smooth, and mobile. There was a complex mass on right adnexa with adhesion. The mass was comprised of right oviduct, right ovary, omentum and gut. Adhesion was separated cautiously and right oviduct & ovary was removed. Dissected tissue was sent for histopathological examination. Left adnexa were of normal size. As she had 2 alive children, left-sided tubectomy was performed after taking written informed consent. Two units of fresh blood were transfused. Injection ceftriaxone 1gm twice daily for 3 days, followed by capsule cefuroxime (500 mg) twice daily for 7 days. Injectable diclofenac (50 mg) was administered twice daily as postoperative analgesic. Post-operative period was uneventful. Patient was discharged from hospital on 5th postoperative day with following advice-avoidance of coitus for 1 month and heavy work for 3 months. Patient came to hospital after 14 days with biopsy report which showed presence of trophoblast in dissected tissue. Patient was informed in detail about the writing of the case report and possibility of future publication of patient's clinical history without sharing patient identification information.

DISCUSSION

Heterotopic pregnancy is a rare and potentially life-threatening condition where intrauterine and ectopic gestations co-exist. Few cases of heterotopic pregnancy were reported from Bangladesh.^{9,10} Several studies established correlation of heterotopic pregnancy with ART.^{5,7,11-14} In our patient, heterotopic pregnancy occurred spontaneously with no predisposing factors. The early diagnosis of heterotopic pregnancy is quite troublesome because of lack of clinical features and diagnostic tool.¹⁵ In this patient, intrauterine pregnancy was detected through abdominal ultrasonography followed by induced abortion in first trimester. If transvaginal ultrasonography could be done instead of transabdominal USG, heterotopic pregnancy would be revealed.³

The choice of surgical or medical treatment of heterotopic pregnancy depends upon the hemodynamic status and skills of attending physicians. Laparoscopic approach is practiced without hampering the course of intrauterine gestation. Successful resolution of heterotopic pregnancy with systemic or local methotrexate, potassium chloride or prostaglandin installation in gestational sac was reported.^{16,17} Laparotomy was performed in this patient as there was no question of preservation of intrauterine pregnancy.

LIMITATIONS

An early and accurate diagnosis of heterotopic pregnancy is often difficult and Challenging due to the rarity of heterotopic pregnancy, the delay or failure of diagnosis may lead to potential life-threatening condition's such as the rupture of heterotopic pregnancy, hypovolemic shock or even loss of life.

CONCLUSIONS

Heterotopic pregnancy is a rare diagnosis, especially in a patient without any ARF history. The diagnosis can also be difficult and has a high risk of misdiagnosis given the presence of an IUP. Correct diagnosis and immediate intervention, often with laparoscopic surgery can be life saving for both the mother and intrauterine pregnancy.

RECOMMENDATIONS

In women admitting with abdominal pain after abortion, a careful ultrasonographic assessment of the adnexal areas should be performed and heterotopic pregnancy should be considered as differential diagnosis. This approach might be helpful for planning the ideal treatment in time.

DISCLOSURE

All the authors declared no competing interest.

REFERENCES

1. Clayton HB, Schieve LA, Peterson HB, Jamieson DJ, Reynolds MA, Wright VC. A comparison of heterotopic and intrauterine-only pregnancy outcomes after assisted reproductive technologies in the United States from 1999 to 2002. *FertilSteril*. 2007; 87(2): 303-309.
2. Debra P. A heterotopic pregnancy involving a caesarean section scar. *J Ultrasound Med*. 2011; 14 (3): 34-35.
3. Profaca G. EP28.17: Spontaneously conceived heterotopic pregnancy managed conservatively with positive outcome: a case review. *Ultrasound ObstetGynecol*. 2019; 54.(1): 415. Supplement: Abstracts of the 29th World Congress on Ultrasound in Obstetrics and Gynecology, 12-16 October 2019, Berlin, Germany.
4. Nargund A, Majumdar S, Stokes I. Heterotopic pregnancy after spontaneous conception. *ObstetGynecol*. 2013; 33 (4): 425.
5. Ritsuo H, Ohei M, Hitoshi M. Heterotopic cervical pregnancy with preservation of the intrauterine gestation. *Reprod Med Biol*. 2005; 4 (3): 221-223.
6. Çaliskan E, Doger E, Aynioglu Ö. Heterotopic pregnancy: a diagnosis which should be consider more often. *Turk J ObstetGynecol*. 2012; 9 (1): 30-35.
7. Selvaraj P, Selvaraj K. Heterotopic pregnancy: Rare occurrence of a 12-week ruptured right isthmo-cornual ectopic along with a viable intrauterine pregnancy. *J Hum Reprod Sci*. 2012; 5 (2): 223-225.
8. Erten O, Dede H, Kurtaran V, Yirci B, Gelisen O, Goktolga U. Ruptured spontaneous heterotopic pregnancy: A case report. *Turk J ObstetGynecol*. 2012; 9 (4): 227-230.
9. Jahan S, Das TR, Akter L. Heterotopic pregnancy - case report. *JBCPS*. 2011; 29(1): 44-45.
10. Saha E, Das J, Moniruzzaman M, Bachher C. Laparoscopic management of tubal ectopic of heterotopic pregnancy. *JBCPS*. 2017; 34(4): 218-221.
11. Agarwal S K, Wisot A L, Garzo G et al. Cornual pregnancies in patients with prior salpingectomy undergoing in-vitro fertilization and embryo transfer. *FertilSteril*. 1996; 65: 659-660.
12. Chen C D, Chen S U, Chako K H et al. Cornual pregnancy after IVF-ET. A report of three cases. *JRM*. 1998; 43: 393-396.
13. Ferland RJ, Chadwick DA, O'Brien JA et al. An ectopic pregnancy in the upper retroperitoneum following in-vitro fertilization and embryo transfer. *ObstetGynecol*. 1991; 78: 544-546.
14. Marcus SF, Brindsen PR. Primary ovarian pregnancy after in-vitro fertilization and embryo transfer: A report of seven cases. *FertilSteril*. 1993; 60: 167-169.
15. Recce EA, Petric RH, Sirmans MF, Finster M, Todd WD. Combined intrauterine and extrauterine gestations: A review. *Am J ObstetGynecol*. 1983; 146: 323-330.
16. Bratta FG, Ceci O, Loizzi P. Combined intra-uterine and cervical pregnancy treated successfully with methotrexate. *Int J GynaecolObstet*. 1996; 53: 173- 4.
17. Lialios GA, Kallitsaris A, Kabisios T, Messinis IE. Ruptured heterotopic interstitial pregnancy: A rare case of acute abdomen in a Jehovah's witness patient. *FertilSteril*. 2008; 90: 1200-1207.