

Management of Rare Case of Heterotopic Pregnancy in Rural Hospital



Medical Science

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ABSTRACT

Heterotopic gestation, although common with assisted reproductive techniques, is very rare in natural conception. A high index of suspicion can help in timely diagnosis and appropriate intervention. We report a case of heterotopic pregnancy in a 28-year-old woman presented with hemoperitoneum from ruptured tubal pregnancy with live intrauterine gestation at 10 weeks of amenorrhea, diagnosed on ultrasound examination.

Introduction:

Heterotopic gestation, although common with assisted reproductive techniques, is very rare in natural conception.(1)

Spontaneous heterotopic pregnancy is a rare clinical condition in which intrauterine and extrauterine pregnancies occur at the same time.(fig 1) Commonly the EP is within the fallopian tube and uncommonly in the cervix or ovary [2]. Ovarian EPs by themselves are uncommon, accounting for only 1-3% of all ectopic pregnancies [3]. The estimated incidence of HP is between 1/8000 and 1/30,000 [4].



(fig 1)

Case report

A 28-year-old (3 gravida, living two) woman was admitted to the emergency complaining lower abdominal-pelvic pain and generally feeling unwell. Her last menstrual period was on 24/12/14. She reported vaginal bleeding the previous day, single episode. She had two previous normal deliveries spontaneously conceived with no previously fertility treatment; no use any contraception; no history of pelvic inflammatory disease. Patient had no other comorbid condition.

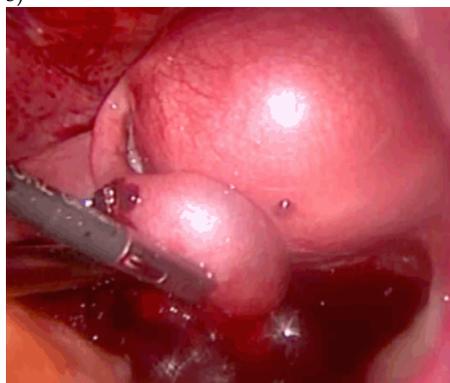
Abdominal examination revealed mild tenderness at the left lower abdomen. Pelvic examination revealed no bleeding from the uterine cervix. Pouch of Douglas was painful on palpation. Her hemoglobin concentration was 12.0 g/dL, the hematocrit was 36.4%, and white blood cell counts were 9,930/mm³. Her serum β -HCG was 55201 mU/mL. A transvaginal sonography showed the intrauterine gestational sac according to 6 weeks of pregnancy, a yolk sac of

4 mm and crown-rump-length of 6 mm with current cardiac activity.(fig 2) The both ovaries were normal; in addition, there was a left tubal mass suggestive of an ectopic pregnancy, which had total size of 8 cm. There was no heart beat in the ectopic pregnancy. The amount of free fluid in the pelvis was minimum.



(Fig 2)

Patient underwent emergency laparoscopy. There was unruptured left-sided tubal pregnancy with minimal hemoperitoneum and laparoscopic salpingotomy was performed; the intrauterine live gestation was allowed to continue. (Fig 3)



(fig 3)

Discussion

In the general population the major risk factor for heterotopic pregnancy are the same as those for ectopic pregnancy. For women in an assisted reproductive program, there may be additional risk factors: a higher incidence of multiple ovulation.(2)

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 (5)

High resolution transvaginal ultrasound with color Doppler will be helpful as the trophoblastic tissue in the adnexa in a case of heterotopic pregnancy shows increased flow with significant reduced resistance index.

Treatment

Any treatment of an ectopic in a heterotopic pregnancy must consider the viability of the intrauterine pregnancy. The treatment of heterotopic pregnancy may also depend on the patient's desire to conserve the intrauterine pregnancy. The choice of surgical or medical treatment depends on the hemodynamic stability of the patient and the skills of the physician. Surgical therapy is optimal when the patient is in the state of shock. Laparoscopy is the line of management for an unruptured ectopic pregnancy without any disturbances to the intrauterine pregnancy, though the survival of the same is controversial with the increasing gestation.

Exploratory laparotomy should be performed in case of ruptured ectopic pregnancy with severe intra-abdominal haemorrhage. Medical therapeutic treatments include transvaginal injection in the unruptured ectopic with potassium chloride, methotrexate or hypermolar glucose.

To initiate MTX therapy, the patient must be hemodynamically stable, with no signs or symptoms of active bleeding or hemoperitoneum. Moreover, she must be reliable, compliant and able to return for regular follow-up. The other factors to be considered are size of the gestation, which should not exceed 3.5 cm at its greatest dimension on US, absence of cardiac activity, absence of free fluid in POD and beta hCG, which should not be more than 5000 mIU/ml. Also, the patient must not have any contraindications to medical therapy with MTX.[6]

Conclusion :

The chances of heterotopic pregnancies are increasing day by day due to increase in the in vitro fertilization procedures. Though rare, the chances of heterotopic pregnancies should be considered with patients in the reproductive age group. It can occur in the absence of any predisposing risk factors. A high index of suspicion followed by an early surgical laparoscopic intervention can minimize maternal morbidity and preserve the developing intrauterine pregnancy. With early diagnosis and treatment, 70% of the intrauterine pregnancies will reach viability [7].

References

1. Errad D, Tso E, Salik R, Barish RA: Unsuspected heterotopic pregnancy in a woman without risk factors. *Am J Emerg Med* 1992, 10:58-60.
2. M. J. Govindarajan and R. Rajan, "Heterotopic pregnancy in natural conception," *Journal of Human Reproductive Sciences*, vol. 1, no. 1, pp. 37-38, 2008.
3. J. Bontis, G. Grimbizis, B. Tariatzis, et al., "Ovarian pregnancy after ovulation induction/intrauterine insemination: pathophysiological aspects and diagnostic problems," *Human Reproduction*, vol. 12, pp. 376-378, 1997.
4. M. S. Kamath, T. K. Aleyamma, K. Muthukumar, R. M. Kumar, and K. George, "A rare case report: ovarian heterotopic pregnancy after in vitro

fertilization," *Fertility and Sterility*, vol. 94, no. 5, pp. 1910.e9-1910.e11, 2010.

5. Ectopic Pregnancy, text book of -Williams Obstetrics. 21st ed. Multifetal Ectopic Pregnancy in Chapter 34; pp. 888-9.
6. The Practice Committee of the American Society for reproductive Medicine. Medical treatment of ectopic pregnancy. *Fertil Steril*. 2006;86:596-102. [[PubMed](#)]
7. C. Nguyen-Tran and E. C. Toy, "Heterotopic pregnancy: viable twin intrauterine pregnancy with a viable right tubal ectopic pregnancy," *Journal of Ultrasound in Medicine*, vol. 19, no. 5, article 355, 2000.