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Spontaneous Heterotopic Pregnancy with Term Delivery of a Live Infant

İlkin Yeral*, Yavuz Şimşek**, Doğa Seçkin*, Nuri Danişman*

* Dr. Zekai Tahir Burak Eğitim ve Araştırma Hastanesi, Ankara
** İnönü Üniversitesi Tıp Fakültesi, Kadın Hastalıkları ve Doğum Anabilim Dalı, Malatya

Objective: The aim of this report is to present a case of heterotopic pregnancy occurring in spontaneous cycle and ended up in term delivery.
Case: A 21 year-old primigravida admitted to the emergency clinic with the complaints of amenorrhea, abdominal pain and vaginal bleeding. Transvaginal ultrasound scan showed an 8 weeks old live intrauterine pregnancy and a left tubal ectopic pregnancy. Laparoscopic salpingostomy was performed for ectopic pregnancy and intrauterine pregnancy was continued. The follow-up of the pregnancy was uneventful. A live healthy fetus was delivered by cesarean section at term.
Conclusion: Spontaneous heterotopic pregnancy is a rare but life threatening condition and always must be considered in the differential diagnosis of patients with abdominal pain and vaginal bleeding during early pregnancy.
Key Words: Heterotopic Gestation; Adnexial Mass; Ectopic Pregnancy.

Termde Canlı Doğumla Sonuçlanan Spontan Heterotopik Gebelik

Amaç: Spontan siklusta gelişen ve term doğumla sonuçlanan heterotopik gebelik olgusunu sunmak.
Olgu: 21 yaşındaki primigravida hasta acil servisimize amenore ,abdominal ağrı ve vajinal kanama şikayetiyle başvurdu.TVUSG'de 8 haftalık intrauterin canlı gebelik ve sol tubal yerleşimli ektopik gebelik gözlendi.Ektopik gebeliğe laparoskopik salpingostomi uygulandı ve intrauterin gebelik sorunsuz bir şekilde terme kadar takip edildi.Sezeryan ile canlı sağlıklı fetus doğurtuldu.
Tartışma: Heterotopik gebelik nadir fakat hayati tehlike yaratabilen bir durumdur. Erken gebelikte abdominal ağrı ve vajinal kanama yakınması olan hastalarda heterotopik gebelik ihtimali ayırıcı tanıda düşünülmelidir.
Anahtar Kelimeler: Heterotopik Gebelik; Adneksiyal Kitle; Ektopik Gebelik.

Heterotopic pregnancy (HP) is defined as the presence of multiple gestations, with one being in the uterine cavity and the other outside the uterus that is most commonly in the fallopian tube.[1] HP is a rare clinical entity in spontaneous cycles. The incidence of spontaneous HP is between 1:4000 and 1:30,000; however, HP is becoming more common due to the expanding use of assisted conception techniques.[2,3] The incidence of heterotopic pregnancy can reach up to 1 in 100 in patients who have assisted reproduction.[4] On the other hand, it can potentially be a fatal condition that might lead to maternal morbidity and even mortality if there is a delay in diagnosis and management .

In this paper, we present a case of heterotopic gestation that occurred spontaneously in a primigravid patient; she had laparoscopic salpingostomy and subsequently had cesarean delivery of a live infant at term.

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Case

Twenty-one year old primigravida presented to the emergency department of our institution with amenorrhoea for 6 weeks and complaints of abdominal pain and light vaginal bleeding. There was no history of pelvic inflammatory or sexually transmitted diseases. She was a regularly menstruating female with cycles of 28 days and bleeding for 3-4 days. She had been married for 1 year and this was a planned spontaneous pregnancy. On clinical examination, her axillary temperature was 37 degree Celsius; pulse, 84/minute, and blood pressure, 110/60 mmHg. On abdominal examination, the uterine size was appropriate for 8 weeks of gestation, and she was tender in the lower quadrants. Bimanual pelvic examination revealed tenderness in both adnexa. Laboratory investigations showed hemoglobin of 11.8 g % and total leucocyte count of 11.800/cm with 84% polymorphs, 19% lymphocytes, 2% monocytes and 3% eosinophils. Urine routine examination was normal. A transvaginal scan done in the emergency room showed single live

intrauterine pregnancy with CRL of 1.4 cm corresponding to 8 weeks of gestation. However there was significant collection in the pouch of Douglas and a left adnexal mass of 4x4 cm in diameter, with a gestational sac and a fetal pole without visible cardiac activity that was suggestive of an ectopic pregnancy (Figure 1).

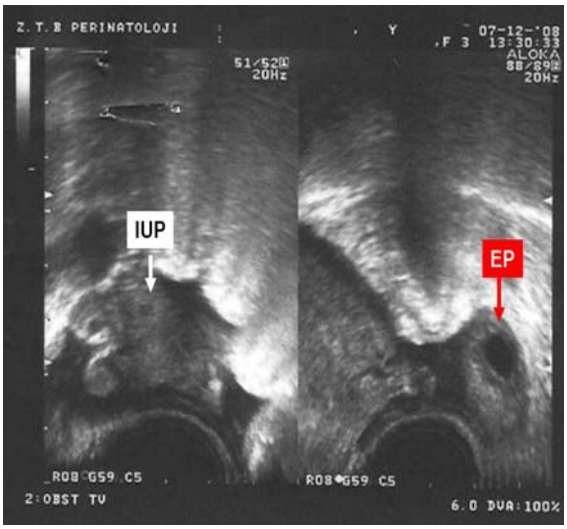

Figure 1. Ultrasonographic image of an intrauterine pregnancy (IUP) with a left tubal ectopic pregnancy (EP)

She was planned for diagnostic laparoscopy for the differential diagnosis of HP. The patient was given information on the procedure, and her written informed consent was obtained. In the laparoscopy, there was approximately 300 mililiter of hemoperitoneum. Uterus was enlarged to 8 weeks' gravid size, and a 3x4 cm left tubal pregnancy at the ampullary region was noted. A laparoscopic salpingostomy to the left tube was performed with evacuation of the trophoblastic tissue. The specimen was sent for pathologic evaluation. The operation was completed without any complication, and the patient was discharged on postoperative day 3. A repeat transvaginal scan post operatively showed an ongoing intra uterine pregnancy. Histology from the specimen confirmed hemorrhage, decidua and chorionic villi suggestive of a left tubal pregnancy.

Prenatal follow-up of the patient was uneventful. At term, she underwent a caesarean section for obstructed labor and delivered a healthy male infant of 3.69 kg with good Apgar score.

Discussion

The incidence of HP is rising probably because of rising incidence of ectopic gestation, pelvic infection and increasing use of ovulation inducing drugs and assisted reproductive techniques.[2-4] The majority of heterotopic pregnancies consist of a single tubal gestation combined with an intrauterine pregnancy. Rarer varieties including combined cervical-intrauterine, ovarian-intrauterine, abdominal-intrauterine, and bilateral tubal-intrauterine pregnancies have also been reported on only a few occasions. It has been believed that increased risk of HP after IVF cycles is largely due to the presence of multiple embryos in a given cycle and possible tubal damage in infertile women.

HP can have various presentations. It should be considered more likely after assisted reproductive techniques, with persistent and rising chorionic gonadotropin levels after dilatation and curettage for an induced or spontaneous abortion, and when the uterine fundus is larger than for menstrual dates, when more than one corpus luteum is present in a natural conception and when vaginal bleeding is absent in the presence of signs and symptoms of ectopic pregnancy.[5] The diagnosis of heterotopic pregnancy presents a great clinical challenge because early diagnosis is difficult due to the possibility of a viable intrauterine pregnancy. Tal et al have reviewed 139 patients with HP and reported that 70% of HPs were diagnosed between 5 and 8 weeks; 20%, between 8 and 10 weeks, and remaining 10%, beyond the 11th week.[6]

Serial β-hCG measurements as the most sensitive non-invasive method in patients with ectopic pregnancy is not useful for the diagnosis of HP in the presence of a viable intrauterine pregnancy. Transvaginal ultrasonography (TVUSG) should be used as an important diagnostic technique in the diagnosis of HP. Visualization of the heart activity in both intrauterine and extrauterine gestations by ultrasound makes the diagnosis certain. We diagnosed the HP in our case without any delay because of the presence of apparent left tubal pregnancy and a normal intrauterine pregnancy of 8 weeks of gestation on the transvaginal scan. Although it has been reported that 10-41% of patients with HP can be diagnosed by TVUSG, preoperatively, in high risk patients for ectopic pregnancy, routine TVUSG should be performed and adnexal areas in particular should be evaluated despite the diagnosis of a viable intrauterine gestation.[6] Since heterotopic pregnancy is a rare event, no standardized management recommendation currently exists. However, surgery remains the treatment of choice for the management of cases with HP. The aim is to terminate the extra-uterine pregnancy while retaining a viable intra-uterine pregnancy. Laparoscopy has been considered the gold standard for the diagnosis and treatment of these patients.

However, in their recently published review,

Barrenetxea et al. demonstrated that patients with HP are more likely to have tubal rupture and present hypovolemic shock; thus, an emergency laparotomy is frequently required.[7] The local injection of potassium chloride or hyperosmolar glucose to the intact tubal ectopic site is another treatment choice of heterotopic pregnancy.[8] Methotrexate, RU486 or prostaglandins should not be used due to their potential adverse effects on the intrauterine gestation.[9] Our patient was treated with a laparoscopic left salpingostomy.

The main challenge in a case of heterotopic pregnancy is to preserve the development of the intrauterine pregnancy, with subsequent normal pregnancy course and outcome. We were able to do this by early diagnosis and intervention of HP and by preventing the hemodynamic compromise through effective replacement of the intravenous fluids.

The survival rate of the intrauterine pregnancy of a patient with a diagnosis of HP has been reported to be 66% after surgical treatment.[6]

In conclusion, increasing incidence of HP emphasizes the need for a high index of suspicion in symptomatic patients with/without risk factors for ectopic pregnancy. Early diagnosis of HP can be challenging. As a fatal condition, HP must always be considered in the differential diagnosis of abdominal pain and vaginal bleeding in the first trimester, particularly in patients who conceived by means of assisted reproductive technology.

References

1. Bright DA, Gaupp FB. Heterotopic pregnancy: a reevaluation. J Am Board Fam Pract 1990;3:125-8.
2. Kolawole AO, Zayyan MS, Onwuhafua PI.Heterotopic gestation with subsequent live birth in a Jehovah s Witness: a case report. Niger J Clin Pract 2010;13(2):223-4.
3. Berliner I, Mesbah M, Zalud I, Maulik D. Heterotopic triplet pregnancy: report of a case with successful twin intrauterine gestation. J Reprod Med 1998;43:237-9.
4. Goldman G, Fisch B, Ovadia J, Tadir Y. Heterotopic pregnancy after assisted reproductive technologies. Obstet Gynecol Surv 1992;47:217-21.
5. Luo X, Lim CE, Huang C, Wu J, Wong WS, Cheng NC. Heterotopic pregnancy following in vitro fertilization and embryo transfer: 12 cases report. Arch Gynecol Obstet 2009;280(2):325-9.
6. 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.
7. Barrenetxea G, Barinaga-Rementeria L, Lopez de Larruzea A, Agirregoikoa JA, Mandiola M, Carbonero K. Heterotopic pregnancy: two cases and a comparative review. Fertil Steril 2007;87(2):417.
8. Ocal P, Erkan S, Cepni I, Idil MH. Transvaginal ultrasound-guided aspiration and instillation of hyperosmolar glucose for treatment of unruptured tubal heterotopic pregnancy. Arch Gynecol Obstet 2007;276(3):281-3.
9. Lukaszuk K, Nakonieczny M, Wójcik D, Liss J, Preis K, Emerich J. Heterotopic pregnancy after in vitro fertilization. Przegl Lek 2006;63(4):239-41.

İletişim Adresi: Dr. Yavuz ŞİMŞEK
İnönü Üniversitesi Tıp Fakültesi,
Kadın Hastalıkları ve Doğum Anabilim Dalı, Malatya
Tel: 0422 377 30 00 /4708
GSM: 0532 711 99 11
e-mail: dryavuzsimsek@yahoo.co.uk