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A rare cause of surgical abdomen: Heterotopic pregnancy rupture

Cerrahi batının nadir bir nedeni: Heterotopik gebelik rüptürü

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Abstract

Heterotopic pregnancy is simultaneous extrauterine and intrauterine localization of the fertilized ovum. In this article, we aimed to present the case of a ruptured heterotopic pregnancy patient who had abortion a week ago. A 28-year-old female patient was referred to the Emergency Department due to vaginal bleeding and abdominal pain. Physical examination revealed that the patient, who had an abortion a week ago because of unwanted pregnancy at the 7th gestational week, had widespread sensitivity in the abdomen. Active bleeding was observed in vaginal examination. Her serum β-human chorionic gonadotropin level was 14562 mIU/mL. A fetus surrounded by hematoma with an 8 mm crown-rump length and heartbeat was observed in the right adnexal area during pelvic ultrasonography. The patient was diagnosed with ruptured heterotopic pregnancy and underwent surgery. In female patients who are in reproductive age and who refer to Emergency Department with acute abdominal pain and vaginal bleeding, it must not be ignored that there might be extrauterine pregnancy along with intrauterine pregnancy and/or rupture. Ectopic pregnancy is a disease, which might occur in sexually active women in reproductive period and develops as a result of abnormal implantation of blastocyst. It can be localized in the ovaries, and less commonly, in the fallopian tubes. Ovarian pregnancy is characterized with the blastocyst being implanted in the ovary. It constitutes 0.15-3% of ectopic pregnancies and is observed in approximately one in every 7000 pregnancies. In our case, the blastocyst was localized in the right ovarian area, which is exceedingly rare.

Keywords: Acute abdomen, Abdominal pain, Ectopic pregnancy, Heterotopic pregnancy, Rupture

Öz

Heterotopik gebelik, fertilize ovumun eş zamanlı olarak ekstrauterin ve intrauterin yerleşimidir. Yazımızda bir hafta önce kürtaj olmuş rüptüre heterotopik gebelik olgusunu literatür eşliğinde tartışmayı amaçladık. Yirmi sekiz yaşında kadın hasta vajinal kanama ve karın ağrısı şikayetleri nedeniyle acil servise müracaat etti. Bir hafta önce, 7 haftalık intrauterin istenmeyen gebelik nedeniyle kürtaj olan hastanın fizik muayenede batında yaygın hassasiyeti mevcut idi. Vajinal muayenede aktif kanama izlendi. Kan tetkik sonuçlarında serum β-human koryonik gonadotropin düzeyi 14562 mIU/mL olduğu saptandı. Yapılan ultrasonografide sağ adneksiyal alanda, kalp atımı mevcut crown-rump length 8 mm ve etrafında hematom mevcut fetüs izlendi. Hastaya rüptüre heterotopik gebelik tanısı konularak ameliyata alındı. Ektopik gebelik, üreğen dönemde cinsel yönden aktif olan kadınlarda ortaya çıkabilen çok ciddi hastalıklardan birisidir. Blastokistin anormal implantasyonu sonucu gelişen ektopik gebelik en sık fallop tüplerinde, daha az sıklıkta over yerleşimli olabilir. Ovaryan gebelik, blastokistin over içinde implante olması ile karakterizedir. Ektopik gebeliklerin %0,15-3'ünü oluşturur. Yaklaşık 7000 gebelikte bir görülmektedir. Bizim vakamızda blastokist, nadir görülen bir yerleşim yeri olan sağ over lokasyonundaydı. Akut karın ağrısı ve vaginal kanama şikayetleriyle acil servise gelen üreme dönemdeki bayan hastalarda intrauterin ile beraber ekstrauterin gebelik ve/veya rüptürü de olabileceği göz ardı edilmemelidir.

Anahtar kelimeler: Akut batın, Karın ağrısı, Ektopik gebelik, Heterotopik gebelik, Rüptür

Introduction

Ectopic pregnancy occurs when the fertilized ovum is implanted in any tissue other than endometrial cavity. Heterotopic pregnancy, on the other hand, is simultaneous extrauterine and intrauterine placement of fertilized ova. Ectopic pregnancy occurs in one of 200 pregnancies in reproductive age, from menarche to menopause. It is most detected between the ages of 30 and 40. Heterotopic pregnancy prevalence, on the other hand, is 0.6-2.5 per 10,000 pregnancies. Ectopic pregnancy is an important morbidity and mortality cause in women in reproductive period. It is the most prominent cause of pregnancy-related mortality in the first trimester in developed countries [1,2]. A total of 6% of the pregnancy-related mortality is linked to ectopic pregnancy rupture [3]. The purpose of this study was to discuss a ruptured heterotopic pregnancy together with literature research with a patient who had an abortion a week ago and who was referred to the Emergency Service with complaints of vaginal bleeding and abdominal pain.

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Case presentation

A 28-year-old female patient, from whom verbal consent for this case report was obtained, was referred to the Emergency Department because of vaginal bleeding and abdominal pain. General condition of the patient was well, she was conscious and cooperative at the time of admission. Arterial blood pressure was 90/60 mmHg, her pulse was 114 /min and weak. She was referred to a hospital one week ago with nausea and vomiting complaints, and a 7-week intrauterine pregnancy was determined. She had an abortion because it was an unwanted pregnancy, after which the patient was discharged uneventfully. It was also learned that the patient had frequent pelvic infections and had another abortion one year ago because of unwanted pregnancy.

In physical examination, the patient had widespread sensitivity in the lower right quadrants of the abdomen, and there was no defense or rebound. Active bleeding was observed in vaginal examination. Intravenous (IV) isotonic saline infusion was administered. Laboratory results revealed that Hemoglobin (Hb) was 12.2 g/dL and serum β-human Chorionic Gonadotropin (β-hCG) level was 14562 mIU/mL. A fetus with a Crown-Rump Length (CRL) of 8 mm and a heartbeat, surrounded by hematoma, was observed in the right adnexal area in ultrasonographic (US) examination (Figure 1). In addition, there was widespread free fluid in the abdomen (Figure 2). The patient was diagnosed with ruptured heterotopic pregnancy. After one hour, control Hb value was 10.8 g/dL. The patient underwent emergency surgery for right salpingectomy. On the postoperative fourth day, the patient was discharged healthily without complications.

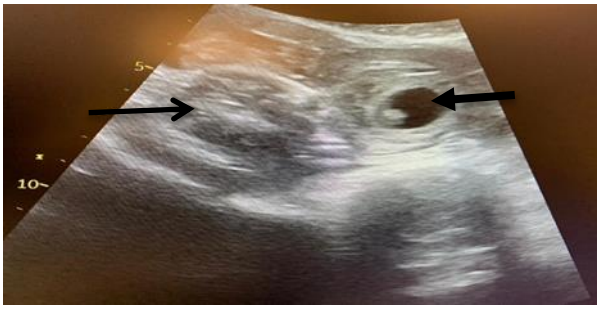

Figure 1: CRL: 8 mm fetus (arrow) with a heartbeat and hematoma in right adnexal area (full arrow)

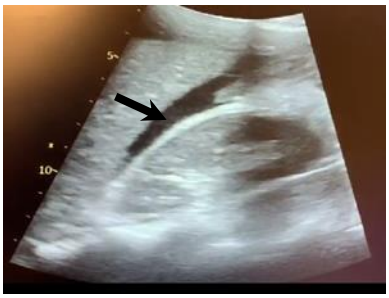

Figure 2: Free fluid in the hepato-renal cavity (arrow)

Discussion

Ectopic pregnancy is one of the most significant diseases that can be detected in women who are sexually active in their reproductive period. Premature implantation, which is caused by factors that delay or prevent fertilized ovum from reaching the endometrial cavity, is more common in women with certain risk factors, such as previous abdominal pelvic surgery and pelvic infections, smoking, past ectopic pregnancy, menstrual reflux, hormonal changes and malignancies affecting tubal motility, Intrauterine Devices (IUD), protection with pills that contain only progesterone, and vaginal shower [4]. The known risk factors of our patient included smoking, frequent pelvic infections, and occasional post-coital vaginal showering.

Ectopic pregnancy, which develops as a result of abnormal implantation of blastocyst, most commonly occurs in one of the fallopian tubes, at a rate of 95-98%. Less frequently, it may also occur in the ovaries, cervix, and abdominal cavity. Since these anatomical regions are not suitable for placenta placement and embryo development, rupture and bleeding potential is high [4-6]. Ovarian pregnancy, a rare form of ectopic pregnancy that is characterized by a blastocyst implanted in ovaries, constitutes 0.15-3% of ectopic pregnancies. It is observed in one of approximately 7000 pregnancies. It is more common especially in women with IUDs [7]. In our case, the blastocyst was implanted in the right ovary, which is rare. However, our patient did not have IUD. The most common complaint in ovarian pregnancy rupture is abdominal pain and vaginal bleeding. Hypovolemic shock may also develop as a result of rupture-related bleeding [8]. The complaints of our patient for referring to the Emergency Service were in line with the literature, and she had rupture and bleeding as a clinical manifestation and was in pre-shock condition.

Ovarian ectopic pregnancy diagnosis is possible with serum β-hCG level measurement and transvaginal USG. The characteristic sonographic findings of ovarian ectopic pregnancy include a wide echogenic ring accompanying an echo-lucent area within an ovary. For definitive diagnosis, a yolk sac or embryo should be observed within the echogenic ring [9]. If ovarian ectopic pregnancy is not diagnosed earlier, life-threatening conditions can be caused by rupture of an ectopic gestational sac and consequent hemoperitoneum resulting from the high vascularity of ovarian tissues [10]. The current complaints of our patient could be attributed to the recent abortion she went through, which was the main factor that made considering the pre-diagnosis of ectopic pregnancy difficult. Our patient was diagnosed with serum β-hCG level measurement and USG. If the hemodynamic findings of the patient in ruptured ectopic pregnancy are unstable, the only treatment option is surgery [11]. Our patient underwent emergency right salpingectomy.

Conclusion

The possibility of extrauterine pregnancy and/or rupture together with intrauterine pregnancy must not be ignored in patients who refer to Emergency Department with acute abdominal pain and vaginal bleeding complaints.

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