Spontaneous Unilateral Monochorionic Diamniotic Twin Tubal Pregnancy: Case Report

Spontan Unilateral Monokoryonik Diamniyotik Tubal İkiz Gebelik

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ABSTRACT Early diagnosis of an ectopic pregnancy is possible with serial serum quantitative beta human chorionic gonadotropin (β-hCG) levels and transvaginal ultrasonography. Medical or surgical management options have similar efficacy in properly selected patients. In this article, we present a case of highest β-hCG level reported in the literature in a spontaneous unilateral monochorionic diamniotic twin tubal pregnancy without tubal rupture.

Key Words: Pregnancy, twin; pregnancy, ectopic; twinning, monozygotic

ÖZET Ektopik gebeliğin erken tanısı, serumda seri kantitatif beta insan koryonik gonadotropin (β-hCG) değerinin ölçümü ve transvaginal ultrasonografi ile konulabilinir. Medikal veya cerrahi tedavi, uygun seçilen hastalarda benzer başarı oranına sahiptir. Bu makalede, literatürde bildirilen en yüksek serum β-hCG değerine sahip rüptüre olmamış spontan unilateral monokoryonik diamniyotik tubal ikiz gebelik olgusu sunulmuştur.

Anahtar Kelimeler: İkiz gebeliği; gebelik, ektopik; ikiz, monozigotik

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Ectopic pregnancy occurs when the developing blastocyst implants outside of the endometrial cavity. Today 2% of all recognised pregnancies are ectopic and approximately 80-90% of them are located in the ampulla region of the fallopian tubes.[1] More than 100 cases of tubal twin pregnancy have been described in the literature. Twin ectopic pregnancies are thought to occur at a frequency of 1/125 000 in all pregnancies.[2] Here, we report a spontaneous unilateral monochorionic diamniotic twin pregnancy treated in our centre.

CASE REPORT

A 30-year-old woman, gravida 2, para 1, was referred to our centre with pelvic pain and vaginal bleeding. Three years earlier, she delivered a term baby vaginally. She had no history of gynecological surgery. Her last menstrual period was 8 weeks earlier and she was not using any contraception. During the pelvic examination, minimal left adnexial tenderness was noted with no vaginal bleeding. The serum beta human chorionic gonadotropin

(β-hCG) level was 67.280 IU/L and the haemodynamic parameters were stable at the first intervention, with a blood pressure of 110/70 mmHg, pulse rate of 88/min, haemoglobin level of 10.7 mg/dl, and haematocrit level of 32.7%.

Transvaginal ultrasound (TVUS) revealed one gestational sac with a thin amniotic membrane separating the two embryos and two yolk sacs on the left adnexa (Figure 1). The fetal crown-rump lengths (CRL) matched at 13.8 mm (7-week 4-day gestation) and 16.1 mm (7-week 6-day) respectively (Figure 2). No heartbeat was detected in either embryos and no free fluid was seen within the cul-de-sac. Both ovaries appeared normal. The endometrial cavity consisted of minimal fluid, with no gestational sac.

Patient informed about her condition, and surgical management was planned but she declined surgical therapy. The next day, the β-hCG level fell to 42.605 IU/L and she complained of worsening pain in the left adnexial area. TVUS was performed and hematoma formation with free fluid in the cul-de-sac was seen. Due to suspected tubal rupture, operative laparoscopy was performed after informed consent was obtained. This revealed the abortion of ectopic material through the tubal fimbria without tubal rupture, also active bleeding and hematoma formation in the cul-de-sac was seen (Figure 3). Left salpingectomy and dilatation-curettage of the endometrial cavity was performed. The patient's postoperative course was uncomplicated. Histological examination of the surgical specimen confirmed the diagnosis. The histology of curettage material was reported as an Arias-Stella reaction.

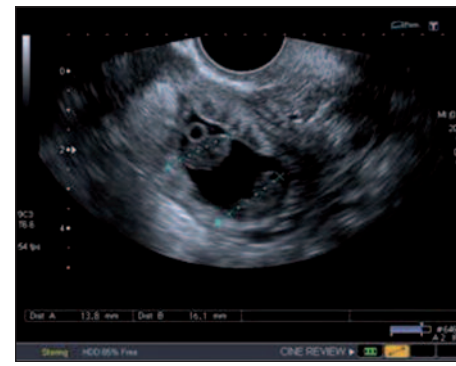

FIGURE 1: Transvaginal sonogram shows one gestational sac with two embryos.
(See for colored form http://jinekoloji.turkiyeklinikleri.com/)

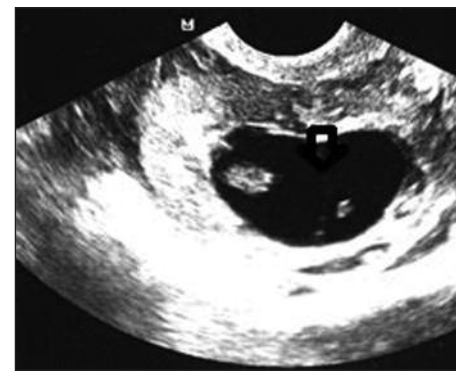

FIGURE 2: Note the thin dividing membrane separating the embryos (arrow).

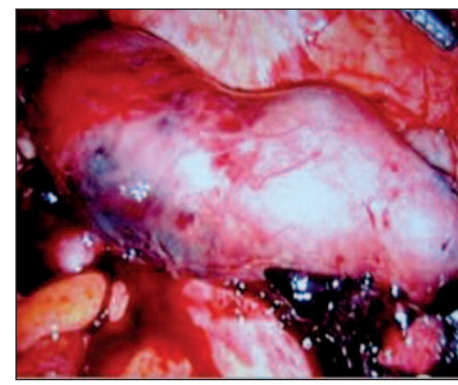

FIGURE 3: Laparoscopic appearance of hematoma formation with active bleeding through the tubal fimbria without tubal rupture.
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DISCUSSION

Several factors are thought to increase the risk of ectopic pregnancy of which pelvic inflammatory disease (PID) is the major one. Other high-risk factors include uterine malformation, an intrauterine device, previous ectopic pregnancy, salpingitis isthmica nodosa and the use of assisted reproductive technology (ART). Moderate- and low-risk factors include smoking, multiple sex partners, vaginal douching, history of infertility and advancing maternal age.[3]

The clinical signs and symptoms of tubal ectopic gestation include abdominal pain, vaginal bleeding, and delay of expected menses as in our

case. These symptoms may be seen in as few as 45% of ectopic pregnancies.[4]

Although the majority of twin tubal pregnancy case series reported diamniotic twin gestation, some reported monoamniotic cases.[5] In our case, ultrasonographic appereance of two embryos and two yolk sacs in one gestational sac with a thin dividing amniotic membrane on adnexa revealed a monochorionic diamniotic twin tubal pregnancy. There are about 100 case reports of unilateral twin ectopic pregnancy and most were treated surgically with laparoscopy or laparotomy incorporating tubal salpingostomy or salpingectomy. Successfull medical management of unilateral twin ectopic pregnancy with single-dose methotrexate has been also reported.[6]

Our patient had the highest β-hCG level (67 280 IU/L) with spontaneous twin tubal pregnancy reported in the literature, although cardiac activity was absent in both fetuses and tubal rupture was not present. Nene and Dreyer reported a tubal twin pregnancy with high β-hCG value of 110 744 mIU/mL, but tubal rupture was present in their case.[7] The early diagnosis of ectopic pregnancy with appropriate medical or surgical management prevents life-threatening rupture.

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