

# A Unilateral Live Spontaneous Tubal Twin Ectopic Pregnancy: A Rare Case

## Unilateral Canlı Spontan Tubal İkiz Ektopik Gebelik

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**ABSTRACT** Spontaneous monochorionic monoamniotic twin tubal pregnancy is an extremely rare case. Clinical signs and symptoms together with imaging studies are helpful in the diagnosis of this kind rare variant of ectopic pregnancies. A case with unilateral twin tubal ectopic pregnancy was presented in a 38 years old woman, gravida 3, para 2 who was admitted with a complaint of lower abdominal pain and retarded menstruation. She had no vaginal bleeding, no use of an intrauterine contraceptive device and no history of any previous surgery. A transvaginal sonography led to the diagnosis of twin right tubal ectopic pregnancy with two fetuses having fetal heart movements. The patient underwent unilateral salpingectomy. The patient had an uneventful postoperative course and was discharged on the third day.

**Key Words:** Pregnancy, ectopic; pregnancy, tubal

**ÖZET** Spontan monokoryonik monoamniyotik ikiz tubal gebelik çok nadir görülen bir durumdur. Klinik belirti ve semptomların yanı sıra görüntüleme yöntemlerinin de yardımı ile ektopik gebeliğin bu nadir varyantı tanınabilmektedir. Bu raporda, unilateral ikiz tubal ektopik gebelik sunulmuştur. Otuz sekiz yaşında, gravida 3 parite 2 olan hasta alt abdominal ağrı ve adet gecikmesi şikâyetleri ile başvurmuş, başvuru sırasında vajinal kanama, intrauterin kontraseptif araç ve herhangi bir cerrahi öykü saptanmamıştır. Yapılan transvajinal sonografi sonrasında tespit edilen sağ tubal ikiz ektopik gebelikte her iki embriyoda da kardiyak aktivite izlenmiştir. Hastaya unilateral salpenjektomi uygulanmıştır. Postoperatif takipleri olağan seyreden hasta üçüncü günde taburcu edilmiştir.

**Anahtar Kelimeler:** Gebelik, ektopik; gebelik, tubal

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Unilateral twin ectopic pregnancies are very rare and therefore difficult to diagnose. DeOtt originally described this finding in 1891.<sup>1</sup> Live twin ectopic pregnancies occur at frequency of 1/125.000.<sup>2</sup> Around 100 cases have been published in the literature as an unilateral twin ectopic gestation but only a few were diagnosed preoperatively and even fewer publications have described fetal heart activity in live twins.<sup>3-5</sup> Ectopic pregnancy risk increases with the use of assisted reproductive technology procedures (ART).<sup>6</sup> We report a case of spontaneous unilateral monochorionic monoamniotic twin ectopic pregnancy diagnosed preoperatively with fetal cardiac activities in both embryos.

## CASE REPORT

A 38 years old woman, gravida 3, para 2 was admitted for the complaints of lower abdominal pain and retarded menstruation. Her vital signs were normal. Blood pressure: 120/90 mmHg, pulse: 89/min, body temperature 36.8°C. Her estimated gestational age was 7 weeks and 2 days based on her last menstrual period. She had no vaginal bleeding and no use of an intrauterine contraceptive device or no history of any previous surgery. On physical examination, her abdomen was mildly tender without rebound tenderness or guarding. Pelvic examination revealed cervical motion tenderness and bilateral adnexial tenderness.  $\beta$ -hCG was measured as 12.160 mIU/mL, a hemoglobin level of 10.7 g/dL and a hematocrit level of 31.1%. She had blood A/Rh (+) group. Transabdominal ultrasonography revealed a thickened endometrial cavity and free fluid in the pouch of Douglas and right twin ectopic pregnancy (Figure 1). Transvaginal ultrasonography confirmed a monoamniotic monochorionic twin pregnancy both crown-rump lengths were measured as 7.3 mm (6w + 4d) and with positive fetal cardiac activities detected (Figure 2, 3). Because of the enormity of tubal mass with a significant haemoperitoneum an emergency laparotomy was performed up to hospital conditions. In laparotomy the other pelvic organs such as uterus, left and right ovaries and left tuba uterina were normal. There were 3 x 4 cm right tubal mass and ~100 mL hem-



**FIGURE 1:** A thickened endometrial cavity and free fluid in the pouch of Douglas.



**FIGURE 2, 3:** Monoamniotic monochorionic twin pregnancy with separate yolk sac.

orrhagic fluid visualised. Right salpingectomy was performed. The patient had an uneventful postoperative course and was discharged on the third day.  $\beta$ -hCG and ultrasonography control were normal 3 weeks after the operation and pathologic diagnosis also confirmed ectopic pregnancy.

## DISCUSSION

Ectopic pregnancy comprises almost 2% of reported pregnancies and account for 9% of all pregnancy related deaths. The incidence of ectopic pregnancy is on the rise due to increasing use of assisted reproduction techniques (ART) such as ovulation induction, and in-vitro fertilization.<sup>7,8</sup> Distortion of tubal anatomy due to prior salpingitis, pelvic inflammatory disease, peritubal adhesions, and previous tubal or pelvic operations increases risk of tubal pregnancies.<sup>9</sup> Other risk factors are uterine malformations, intrauterine device use, previous ectopic pregnancies and use of ART. Amenorrhoea, vaginal

bleeding and pelvic pain are demonstrated in 45% of ectopic pregnancies and often contribute to their diagnosis. Transvaginal sonography use increases the sensitivity and specificity in the detection of ectopic pregnancies. When the  $\beta$ -hCG value is less than 1.500 mIU/mL and there is an empty uterus with vaginal sonography, no definitive diagnosis can be made. Sonography with a vaginal transducer can be used to detect uterine gestation as early as one week after missed menses when the serum  $\beta$ -hCG level is greater than 1.500 mIU/mL.<sup>10</sup> Morphologically, identification of the double decidual sac sign (DDSS) is the best known method of ultrasonographically differentiating true sac from pseudosacs.<sup>11</sup> In a study by Barnhart and et al, an empty uterus with a serum  $\beta$ -hCG concentration of 1.500 mIU/mL or higher was reported as accurate diagnosis of ectopic pregnancy.<sup>12</sup> The usage of Doppler sonography allows an earlier and better diagnosis with a sensitivity of 85% and specificity of 96% to detect a tubal gestation.<sup>13,14</sup> The treatment of ectopic pregnancy has progressed from salpingectomy by laparotomy to conservative surgery by laparoscopy and more recently by medical therapy.<sup>15</sup>

Methotrexate treatment is advised if serum hCG is <3.000 IU/L, the tubal mass is moderate in size, there is no heart beat and pouch of Douglas contains no free fluid.<sup>16</sup> If serum hCG level is >5.000 multidose methotrexate treatment may be used.<sup>17</sup> Çelik et al, treated cervical ectopic pregnancy with methotrexate.<sup>18</sup> Arıkan et al. treated a unilateral twin ectopic pregnancy with single dose methotrexate.<sup>19</sup> Our case was not concordant with these criteria. In cases with failure of methotrexate treatment uterine artery embolization is another choice of treatment.<sup>20</sup>

Sergel et al reported a case of live twin ectopic pregnancy with advanced gestation.<sup>21</sup> Their case had monochorionic monoamniotic live twin gestation in the right adnexa corresponding to a gestational age of 11 weeks plus 3 days. Some reports estimated the incidence of live twin tubal ectopic pregnancy at 1:125.000 pregnancies.<sup>22,23</sup> In summary, unilateral tubal live twin ectopic pregnancies are rare events and transvaginal ultrasonography is used in early diagnosis prior to rupture.

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