



## A Case of Unilateral Spontaneous Live Twin Ectopic Pregnancy

Unilateral Spontan Canlı İkiz Ektopik Gebelik Olgusu

Mehmet Onur ARSLANER<sup>1</sup>, Firangiz MİRZAZADA<sup>2</sup>, Mehmet Ferdi KINCI<sup>3</sup>, Begüm KÖSE<sup>3</sup>, Yaşam Akpak<sup>3</sup>, Ahmet Akın SİVASLIOĞLU<sup>4</sup>

<sup>1</sup>Akşehir City Hospital, Department of Obstetrics and Gynecology, Konya, Turkey

<sup>2</sup>Denizli Cerrahi Hospital, Department of Obstetrics and Gynecology, Denizli, Turkey

<sup>3</sup>İzmir City Hospital, Department of Obstetrics and Gynecology, İzmir, Turkey

<sup>4</sup>İzmir University of Economics, Medical Point Hospital, Department of Obstetrics and Gynecology, İzmir, Turkey

### Abstract

**Aim:** Ectopic pregnancy (EP) is the placement of the fertilized ovum in an area other than the endometrial cavity. A one-sided twin EP, on the other hand, is a rare case. It is estimated to occur in approximately 1/200 EPs and 1/125,000 spontaneous pregnancies.

**Case:** In this case, we presented the diagnosis and treatment process of a 40-year-old patient who applied to our clinic with complaints of delayed menstruation, abdominal pain and vaginal bleeding, and then diagnosed with twin EP.

**Conclusion:** Ectopic pregnancy is the most important cause of death in the first trimester. This risk increases in twin EP. Therefore, timely diagnosis and appropriate treatment options are critical. Especially in pregnancies in the first trimester, anamnesis, laboratory, transabdominal and transvaginal ultrasonographic evaluation should be performed.

**Keywords:** Ectopic pregnancy; laparoscopic surgery; twin pregnancy

### Öz

**Amaç:** Ektopik gebelik (EG), fertilize ovumun endometriyal kavite dışında bir alana yerleşmesidir. Tek taraflı ikiz EG ise nadir görülen bir durumdur. Yaklaşık olarak her 1/200 EG’de ve her 1/125.000 spontan gebelikte ortaya çıktığı tahmin edilmektedir.

**Olgu:** Adet gecikmesi, karın ağrısı ve vajinal kanama şikayeti ile kliniğimize başvuran ardından ikiz EG tanısı konulan 40 yaşındaki hastanın tanı ve tedavi süreci sunuldu.

**Sonuç:** Ektopik gebelik, ilk trimesterde görülen ölümlerin en önemli nedenidir. Bu risk ikiz EG’de artmaktadır. Bu sebeple zamanında tanı konulması ve uygun tedavi seçeneğinin yapılması oldukça önemlidir. Özellikle birinci trimesterde olan gebeliklerde anamnez, laboratuvar, transabdominal ve transvajinal ultrasonografi değerlendirmesi yapılmalıdır.

**Anahtar sözcükler:** Ektopik gebelik; ikiz gebelik; laparoskopik cerrahi

**Corresponding Author:** Mehmet Ferdi Kinci

İzmir City Hospital, Department of Obstetrics and Gynecology, İzmir, Turkey

E-mail: drferdikinci@gmail.com

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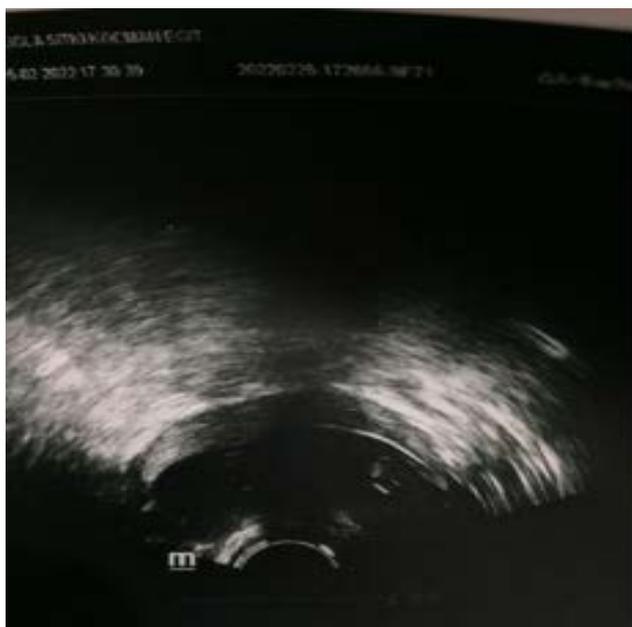
## INTRODUCTION

Ectopic pregnancy (EP) is the placement of the fertilized ovum in an area other than the endometrial cavity. Although the incidence is gradually increasing, it is approximately 1.5-2% in all pregnancies (1). Approximately 80-90% of the EP is located in the ampulla region of the fallopian tubes (1). A one-sided twin EP, on the other hand, is a rare case. It is estimated that it occurs in one out of every 200 EPs and one out of every 125,000 spontaneous pregnancies (2,3). Ectopic pregnancy risk factors include advanced maternal age, operative trauma, congenital anomalies, tumors, assisted reproductive therapy (ART), adhesions, and pelvic inflammatory disease (4).

## CASE

Written consent was obtained from the patient that her medical data could be published. A 40-year-old patient with gravida: 4 parity: 2 was consulted from the emergency department with complaints of vaginal bleeding that started after menstrual delay and pain in the lower quadrants of the abdomen. There was no comorbidity, previous abdominal surgery, use of an intrauterine device, or history of ART. There was a history of one voluntary curettage. On examination, the abdomen was relaxed, and there was no defensive rebound. A vaginal examination revealed spotting-style bleeding. The vital signs were stable. She could not remember her last menstrual date. Informed consent was taken from the patient. No pregnancy material was observed in the uterine cavity in transvaginal ultrasonography (TV-USG) (Figure 1).

**Figure 1:** Uterine cavity in transabdominal ultrasonography (TA-USG)



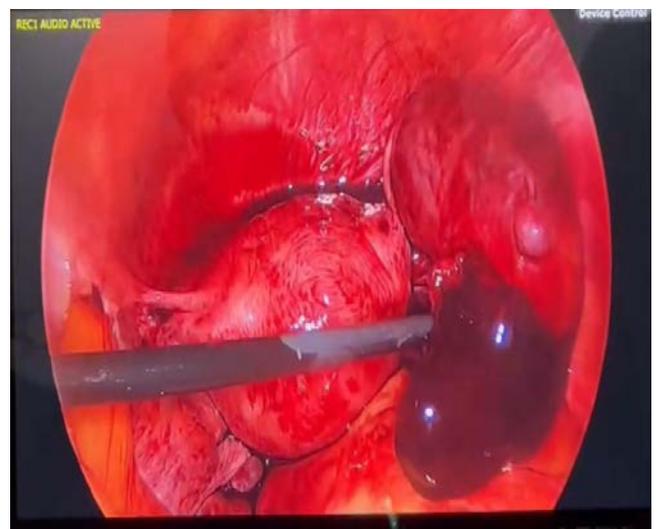
Fetuses with positive fetal heartbeats in the right adnexa and crown-rump length (CRL) of 8w+4d and 9w1d were observed. Minimal free fluid was present in Douglas (Figure 2).

**Figure 2:** Fetuses with positive fetal heartbeats in the right adnexa and crown-rump length (CRL) of 8w+4d and 9w1d



The patient's  $\beta$ -hCG value was reported as >10000 mIU/L. With the current findings, the patient was diagnosed spontaneous twin ectopic pregnancy. The patient underwent laparoscopic surgery (L/S). During L/S, minimal hemorrhagic fluid was observed in the Douglas, coagulum at the right tubal fimbrial end, and an ectopic focus of approximately 8x4 cm in the right tubal ampullary region (Figure3).

**Figure 3:** An ectopic focus approximately 8x4 cm in size in the region of the right tube bulbs



It was observed that the ectopic focus was not ruptured. Both ovaries and the left tuba were observed to have normal appearances. Right salpingectomy was performed on the patient with the help of Ligasure. While the materials were taken out of the abdomen, a gestational sac was ruptured in the specimen bag and the first embryo was removed. Then, the remaining material was removed completely outside the abdomen with the specimen bag. The second gestational sac was ruptured outside the abdomen and the second embryo was detected (Figure 4).

**Figure 4:** Pregnancy products removed in surgery



The materials were sent for histopathological examination and the EP diagnosis was confirmed. The patient, who did not develop any complications during postoperative follow-up, was discharged with healing.

## DISCUSSION

The frequency of EP has been steadily increasing since the 1970s and currently accounts for 2% of all pregnancies (5,6). All types of factors that cause delays in the transport of the ovum increase the risk of EP, but there may not be any risk factors as in our present case. Most unilateral twin tubal pregnancies are monozygotic and monochorionic (7). Neuman et al., on the other hand, reported that many unilateral ectopic twins thought to be monozygotic may actually be dizygotic (8). In our present case, it is seen that EP is dichorionic diamniotic. Although more than 100 cases of twin tubal EP have been reported, the number of cases with both fetal heartbeats is very low. In the study of Bay George et al., it was determined that the total number of cases in 2010 was less than ten (9). In our present case, cardiac activity was detected in both fetuses.

The diagnosis of EP is made by detailed anamnesis, physical examination,  $\beta$ -hCG value and USG. Heterotopic pregnancy and molar pregnancy should be evaluated in the differential diagnosis. In the multiple EP, the  $\beta$ -hCG levels may be higher than normal. In the differential diagnosis of conditions such as intrauterine pregnancy and heterotopic pregnancy, TA and TV should be evaluated alongside USG. In our current case, the  $\beta$ -hCG level could not be studied literally due to laboratory conditions and was reported as  $>10000$ . The diagnosis was made with TA and TV USG evaluation. The risk of tubal rupture in EP is 32%, and the risk of rupture every 24 hours increases by approximately 2.5% in untreated cases (10). In our present case, there was minimal free fluid in the Douglas on TV-USG, and a coagulum was observed at the tubal fimbrial end, which was not ruptured during the operation.

Ectopic pregnancy treatment varies depending on its clinical appearance, size, and complications. Treatment options include conservative treatment and medical or surgical intervention. Ectopic pregnancies can heal spontaneously through regression or tubal abortion. Methotrexate, the most commonly used method in medical treatment, has a low success rate due to an excess of pregnancy material and a high  $\beta$ -hCG value. Especially in women who want to preserve their fertility, salpingostomy is preferred. Twin EP is usually treated surgically (9,11). Whenever possible, L/S treatment is the preferred method. In our present case, the first choice was surgery due to the detection of live twin EP and L/S was performed. A salpingectomy was performed on the case because there were two survivors and the patient did not have any fertility concerns.

## CONCLUSION

Live twin EP is a very rare condition. Ectopic pregnancy is the most important cause of death in the first trimester. Therefore, timely diagnosis and appropriate treatment options are critical. Especially in pregnancies in the first trimester, anamnesis, laboratory, TA and TV USG evaluation should be performed.

## Author Contribution

The author declare no conflict of interest.

The author disclose that no grants or support resources were used.

The author approved the final version of the manuscript.

The author declared that this manuscript has not been published before and is not currently being considered for publication elsewhere.

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