Unilateral Tubal Twin Ectopic Pregnancy Following Ovulation Induction

OVULASYON İNDÜKSİYONUNU TAKİBEN GELİŞEN UNİLATERAL TUBAL EKTOPİK İKİZ GEBELİK

Mehmet ŞİMŞEK, MD,[a] Salih SADIK, MD,[b] Ahmet S. ÖNOĞLU, MD,[b]
Münire AKAR, MD,[a] Recep RECEP, MD,[b] Ömür TAŞKIN, MD,[a]

[a]Department of Gynecology and Obstetrics, Akdeniz University School of Medicine ANTALYA
[b]Clinic of Gynecology and Obstetrics, İzmir Ege Maternity and Gynecology Training and Research Hospital, İZMİR

Abstract

We present a case of a unilateral twin ectopic pregnancy in the right fallopian tube that is extremely rare. A 31-year-old woman had conceived with ovulation induction. Ectopic pregnancy was diagnosed with transvaginal sonography and subsequently treated by laparoscopic surgery.

Key Words: Ectopic pregnancy, twins, ovulation induction

Özet

Human menopausal gonadotropin ile ovulasyon indüksiyonu sonucu oldukça nadir görülen unilateral ikiz tubal ektopik gebelik gelişen hastayı sunduk.Hastanın ultrasonografi ile değerlendirilmesi sonucunda sağ tubada ektopik gebelik ile uyumlu bulgular saptandı ve laparaskopik salpenjektomi uygulanarak tedavi edildi.

Anahtar Kelimeler: Ektopik gebelik, ikiz, ovulasyon indüksiyonu

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Unilateral ectopic twin pregnancy is one of the rarest forms of twin pregnancies with an incidence of approximately 1:125.000.[1] The first unilateral ectopic twin pregnancy was reported in 1891, since then more than 100 case reports have been reported.[2]

We herein report a rare case of unilateral twin ectopic pregnancy following ovulation induction.

Case Report

A 31-year-old primary infertile woman, with a previous history of left ovarian surgery was admitted to the emergency room with acute abdominal pain. The pain was sharp and episodic in the lower quadrant accompanied by nausea and started a day before admission. Her last menstrual period was 5 weeks prior to her presentation to our clinic. She had a laparoscopic cystectomy, in which both tubes were found to be patent. Although she had no risk factor other than surgery, attempts to become pregnant had failed within 1 year. Semen analysis was normal. She had conceived with ovulation induction (Human menopausal gonadotropin) following her last menstrual period.

On admission blood pressure was 100/60 mmHg and pulse rate 80 beats/minute. Physical examination revealed diffuse lower abdominal tenderness with signs of peritoneal irritation. Cervical movement during the bimanual examination was painful; no cervical bleeding was present. She had a hemoglobin level of 11.2 g/dL, white blood cells 13600/mm^3 and a β-human chorionic gonadotropin (β-hCG) level of 2400 IU/L. A transvaginal scan revealed absence of intrauterine sac and a right adnexal heterogeneous, 3-4 cm mass separate from the right ovary. Moderate amount of free fluid in the pouch of Douglas was also noted. She was admitted for an emergency operation under the

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Yazışma Adresi/*Correspondence:* Mehmet ŞİMŞEK MD,
Akdeniz University School of Medicine
Department of Gynecology and Obstetrics, ANTALYA
drmsimsek@hotmail.com

impression of a ruptured ectopic pregnancy. Laparoscopy revealed two separate mass apart from each other in the isthmic and fimbrial part of the right fallopian tube. We decided to perform right salpingectomy because it would be impossible to have tubal patency with extensive salpingostomy.

Macroscopic and microscopic examination of the specimen revealed two (twin) sacs/pregnancies in isthmic and fimbrial portion of the removed tube. Pathological examination of the right salpingectomy revealed decidual fragments with chorionic villi. (Figure 1 and Figure 2).

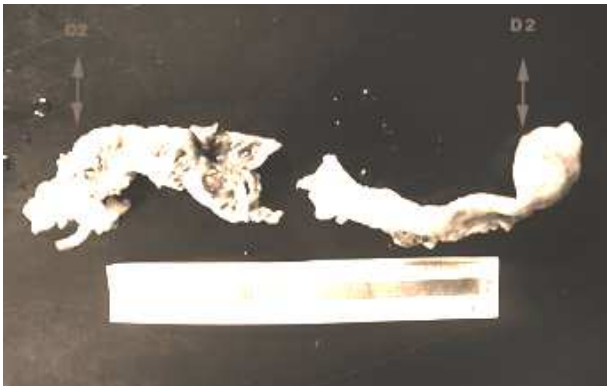

Figure 1. Macroscopic cross-section of the right fallopian tube with gestational sacs. (c2) fimbrial end; (d2) isthmic end.

The postoperative course was uneventful; the patient was discharged on postoperative day one.

Discussion

Despite the improvements in techniques for early diagnosis and management, ectopic pregnancy still remains one of the major health risk for women. The incidence of ectopic pregnancies has increased steadily over last few decades, and now accounts for up to 1-2% in all pregnancies and 2.1-9.4% in assisted pregnancies. Unilateral twin ectopic pregnancies, which are still a relatively rare event, have not followed this increasing trend. In our case, the predisposing factor for unilateral twin ectopic pregnancy was the patient's previous ovarian surgery and ovulation induction.

Most frequently, twin ectopic pregnancies are heterotopic, where there is a simultaneous ectopic and intra-uterine pregnancy. After ovulation induction most likely with clomiphene, there is also an increased risk of heterotrophic pregnancies. Recent publications reported heterotrophic pregnancies after clomiphene use and in vitro fertilization cautioning physicians against the possibility of ectopic pregnancy even in case of documented intrauterine pregnancy.[3] Unilateral ectopic twin pregnancy is one of the rarest forms of twin pregnancies with an

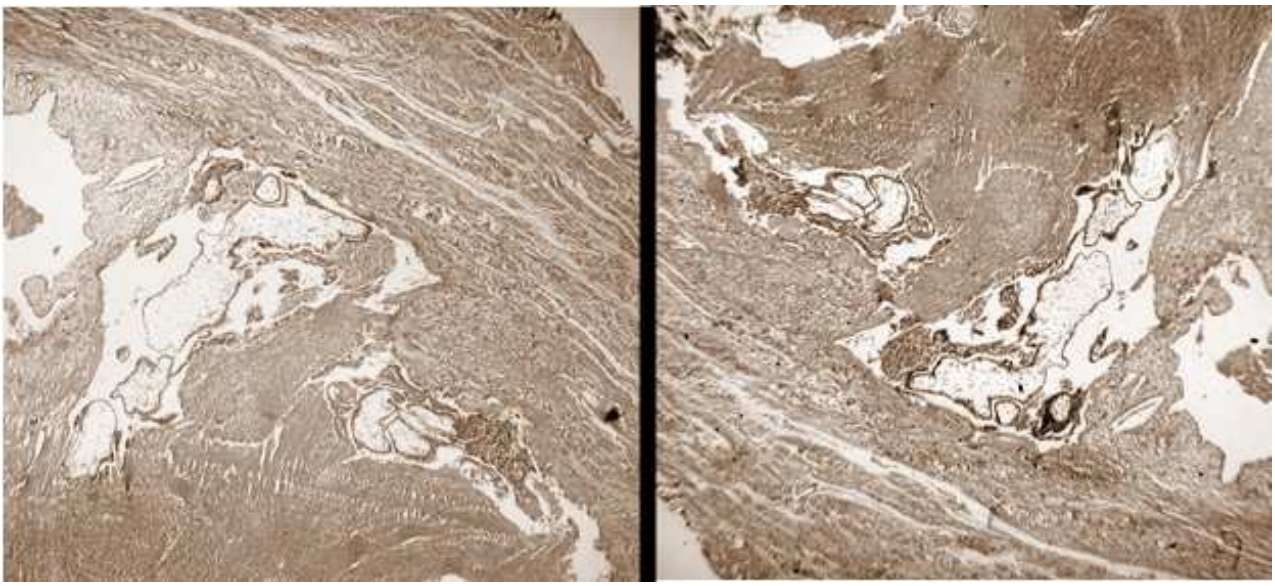

Figure 2. Photomicrograph of the pathologic specimens showing decidual fragments with chorionic villi (H.E. x 30).

incidence approximately one in 200 ectopic pregnancies.[4] Approximately 1:80 pregnancies are twins and 30% of these are monozygotic.[5] Most cases of unilateral twin tubal pregnancies are monochorionic and monozygotic.[6] However, Neuman et al[7] reported many of the unilateral ectopic twins who were thought to be monozygotic may actually have been dizygotic.

The introduction of transvaginal sonography and laparoscopy has dramatically improved the accuracy of the diagnosis of ectopic, and contributed to the decrease of complications such as tubal rupture and maternal death. Treatment of ectopic pregnancies can be classified as either medical or surgical. Early diagnosis of unruptured ectopic pregnancy has shifted surgical approach from radical to conservative thus preserving potential fertility. Whether conservative surgery is done by laparoscopy or laparotomy, persistent ectopic pregnancy is the most common complication, which requires additional methotrexate therapy.[3] However, conservative surgical treatment is not always the best appropriate option in unilateral twin tubal ectopic pregnancy because salpingostomy may cause extensive tubal damage**.** Medical management is also an option for small-unruptured ectopic pregnancy. However, there is not any consensus about adequate dose of methotrexate for a unilateral twin ectopic pregnancy.

Unilateral twin tubal ectopic pregnancy is a very rare case following ovulation induction. Transvaginal sonography is effective in the early diagnosis of this condition. Early diagnosis and early treatment gives the best prognosis.

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