Unilateral twin ectopic gestation: report of a case

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ABSTRACT

Unilateral ectopic twin gestation is a rare entity with few cases described in the literature. The estimated incidence is around 1/20,000-250,000 of all pregnancies and 1/200 ectopic pregnancies. Its management remains a challenge for professionals. Diagnosis and treatment should be performed early, with surgery being the mainstay of treatment. We present the case of a 33-year-old female patient presenting with an ectopic twin gestation after in vitro fertilization, who was surgically managed.

KEYWORDS

Ectopic twin gestation, in vitro fertilization, surgically, assisted reproductive techniques.

Introduction

Unilateral ectopic twin gestation is a rare entity with few cases described in the literature. The estimated incidence is around 1/20,000-250,000 of all pregnancies and 1/200 ectopic pregnancies [1-3]. Its management remains a challenge for professionals. Diagnosis and treatment should be performed early, with surgery being the mainstay of treatment. We present the case of a 33-year-old female patient presenting with an ectopic twin gestation after in vitro fertilization (IVF), who was surgically managed. treated by surgery.

Case report

A 33-year-old primigravid woman presented herself with her partner for a first visit due to primary infertility of 2 years of evolution. She had no relevant personal medical history.

Regarding her obstetrical and gynaecological history, she had her menarche at 10 years of age, indicating regular menstrual periods. Regarding her partner, he is a 42 years old man with chronic hypertension under treatment. On her mother's side there was a history of Chron's disease and breast cancer was. Her father had died of lung cancer. The couple had no toxic habits.

The woman underwent a normal gynaecological physical examination. The uterus had normal characteristics and both ovaries had 5 antral follicles each.

Complementary tests were carried out on both: blood count, coagulation parameters, general biochemistry, serology and blood group. The male was also subjected to a semen analysis which showed oligospermia.

Given the results, the couple was candidate for IVF. Stimulation with follitropin alpha and subsequent ovarian puncture was performed, where 17 oocytes were obtained, 14 fertilized and it was decided to vitrify 5 (4 pre-embryos and 1 blastocyst) due to risk of ovarian hyperstimulation. Two unsuccessful cycles were performed, with transfer of one blastocyst and two pre-embryos, respectively. Finally, a new attempt was made with a successful transfer of two pre-embryos and subsequent positive Beta hCG. At 20 days of gestational age, 6 weeks due to corrected last menstrual period, she attended the emergency department due to abdominal pain and scant vaginal bleeding of three days of evolution. Upon examination, there was a painful abdomen with no signs of peritoneal irritation, normal gynaecological examination and normal uterus observed through transvaginal ultrasound. However, adjacent to the right ovary there were two anechoic formations of 12 x 13 mm and 15 x 17 mm, one of them with a vitelline vesicle inside. In addition, there was free perianexial liquid and heterogeneous material suggestive of organized clots (Figure 1). Beta hCG was 11,501 mIU/ml. Urgent laparoscopy was indicated and a right salpingectomy was performed (Figure 2). Ectopic twin pregnancy was confirmed by pathological anatomy.

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Discussion

Ectopic gestation is defined as the implantation of the blastocyst in a location other than the uterine endometrial lining. The most common location is the fallopian tube [4,5]. It is the main cause of maternal morbidity and mortality in the first trimester and its incidence is increasing, especially with the increase in assisted reproduction techniques [6]. It was first described by De Ott in 1891 [7].

Figure 1 Transvaginal ultrasound. Adjacent to the right ovary two anechoic formations compatible with twin ectopic gestation.

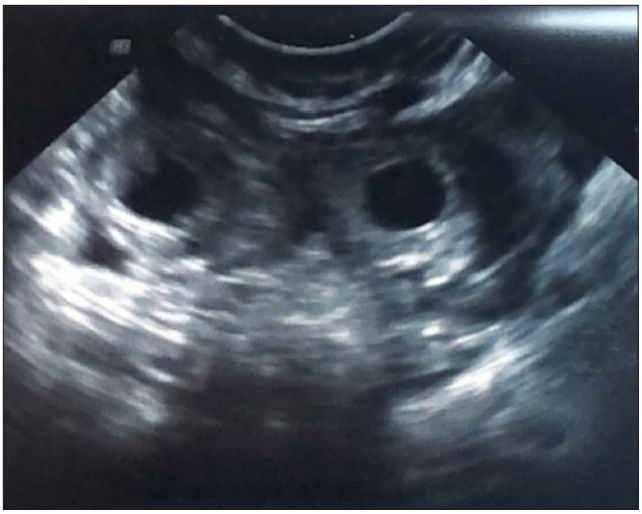
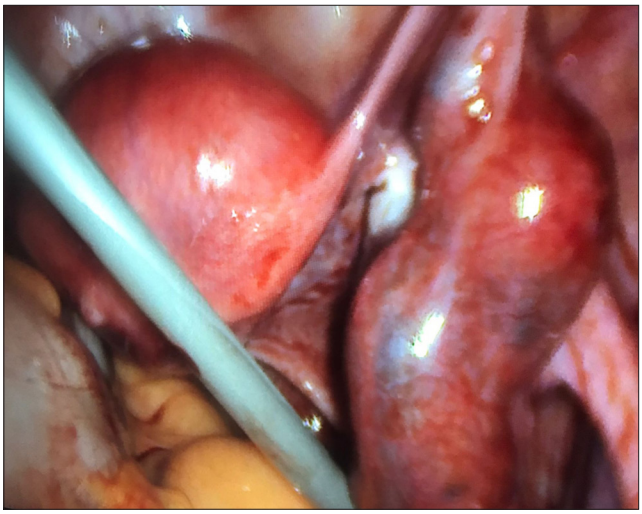


Figure 2 Findings at surgery. Dilated right fallopian tube with two rounded formations compatible with twin ectopic gestation.



The most common type of twin ectopic gestation is heterotopic, in which intrauterine and extrauterine gestation coexist, with an incidence of 1/7,000 pregnancies. Unilateral twin ectopic gestation is a rare entity with few cases described in the literature. The estimated incidence is around 1/20,000-250,000 of all pregnancies [1-3] and 1/200 ectopic pregnancies [5]. For bilateral ectopic gestation the incidence is even lower at 1/725-1,580 of all ectopic pregnancies [8-10]. It rarely occurs spontaneously [11]. Monochorionic-monoamniotic twin pregnancies will be unilateral. However, if twin pregnancy if bichorionic-biamniotic it may be unilateral but may rarely present as bilateral ectopic [5].

The most common risk factors are previous ectopic pregnancy, history of pelvic inflammatory disease, sexually transmitted diseases, tubal surgery and peritubal adhesions from previous surgery (after appendicitis or endometriosis), congenital anomalies, assisted reproductive techniques and smoking [5,12-14]. The clinical picture can range from an asymptomatic patient to abdominal pain, vaginal bleeding, tachycardia, hypotension, etc. [4]. Diagnosis is clinical, combined with transvaginal ultrasound and the measuring of serum beta hCG concentrations. Serum levels may be much higher than those observed in simple ectopic pregnancies (mean of 9,846 mIU/ml) due to increased trophoblastic tissue [7,15].

Some authors have suggested that pre-surgical diagnosis in these cases is difficult, so reference has been made to the use of magnetic resonance imaging (MRI) when ultrasound is inconclusive. It should always be used on a case-by-case basis and should not delay decision-making. It can be used in clinically stable patients when additional information is needed to guide treatment. However, there is scant published evidence to support the use of MRI [16].

The risk of rupture is higher in this type of gestation, estimated at 30-50% [6]. For this reason, diagnosis and treatment must be performed early. There are clear guidelines for the treatment of singleton ectopic pregnancies in the guidelines of the main scientific societies. However, these recommendations are not as clear in cases of multigestational ectopic pregnancies [7]. Currently, surgical intervention remains the mainstay of treatment [7]. However, an increasing number of authors [6,17-20] describe methotrexate treatment in haemodynamically stable and asymptomatic patients. Medical treatment in these cases should be used with caution and in very selected patients, weighing the risk-benefit of fertility preservation against the increased likelihood of rupture and treatment failure [7].

Conclusions

Twin ectopic gestation is a rare but increasing entity due to the rise in the use of assisted reproductive techniques. Its management remains a challenge for professionals. Diagnosis and treatment should be performed early, with surgery being the mainstay of treatment.

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