

## Caso Clínico/Case Report

# Gravidez gemelar dicoriônica espontânea numa das trompas Spontaneous unilateral dichorionic twin tubal pregnancy

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### ABSTRACT

Ectopic pregnancy presents a major health problem for women of childbearing age. It is the result of a flaw in human reproductive physiology that allows the conceptus to implant and mature outside the endometrial cavity. Without timely diagnosis and treatment, ectopic pregnancy can become a life-threatening situation. Spontaneous unilateral twin ectopic pregnancy is an extremely rare condition and a diagnostic challenge for obstetricians. We present a case of a 31-year-old woman, G2 P1, who presented with a 7-week history of amenorrhea and lower abdominal pain.

Transvaginal color Doppler sonography revealed two separate gestational sacs within the left adnexa, each containing an embryo, both with cardiac activity. Exploratory laparotomy with left salpingectomy was the treatment option. Mortality and morbidity associated with spontaneous unilateral twin ectopic pregnancy in the fallopian tube is likely to be reduced by prompt diagnosis and management.

**Keywords:** ectopic pregnancy; twin pregnancy; transvaginal ultrasonography; tubal pregnancy

### INTRODUCTION

The true incidence of ectopic pregnancies remains unknown, since many early ectopic pregnancies resolve spontaneously. The overall ectopic pregnancy rate is appointed to be approximately 11 per 1000 spontaneous pregnancies.<sup>1</sup> Distortion of tubal anatomy

due to prior salpingitis, pelvic inflammatory disease, peritubal adhesions, and previous tubal or pelvis operations increases the risk of tubal pregnancies. Others risk factors include uterine malformation or scarring, intrauterine device use, previous ectopic pregnancies, and use of assisted reproductive technology.<sup>2</sup>

Twin tubal pregnancy with both embryos in the same tube as well as with one in each tube has been reported (Rolle and colleagues, 2004).<sup>3</sup>

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We report a case of spontaneous unilateral twin ectopic pregnancy with documented fetal cardiac activity in both embryos.

### CASE

A 31-year-old woman, G2P1, with a 7-week history of amenorrhea presented to the emergency room with a complaint of left pelvic pain. At the admission, the patient was generally well, conscious, well-oriented and cooperative. The medical history revealed combination oral contraceptive intake, a previous spontaneous abortion and a previous cesarean section; she conceived naturally, had no family history of twins and denied any history of pelvic inflammatory disease.

On examination, she was haemodynamically stable without acute abdominal signs; vaginal examination revealed a closed cervix, no bleeding, same tenderness especially on motion of the cervix, but no suspicious masses were palpable.

Diagnostic tests revealed a serum  $\beta$ -HCG level of 15741mIU/ml, a haemoglobin level of 12,4g/dl, and a hematocrit level of 39%, with an O-positive blood group/Rh. The ultrasound performed showed an empty uterus and a dichorionic ectopic twin pregnancy on

the left side (Figure 1); cardiac activity was present in both embryos (Figure 2) and crown rump lengths were 11,3mm (7 weeks 2 days) (Figure 3).

Exploratory laparotomy was then carried out. No hemoperitoneum was seen and the uterus and right adnexa were normal. Left tube was flattened without signs of rupture (Figure 4) and left ovary wasn't compromised. A left salpingectomy was performed. Tubal dissection revealed two separate gestational sacs with chorion between them (Figure 5).

The patient was discharge from hospital on post-operative day 3 and was followed until her  $\beta$ -HCG level fell below 5mIU/ml. No complications were detected during follow-up period.

### DISCUSSION

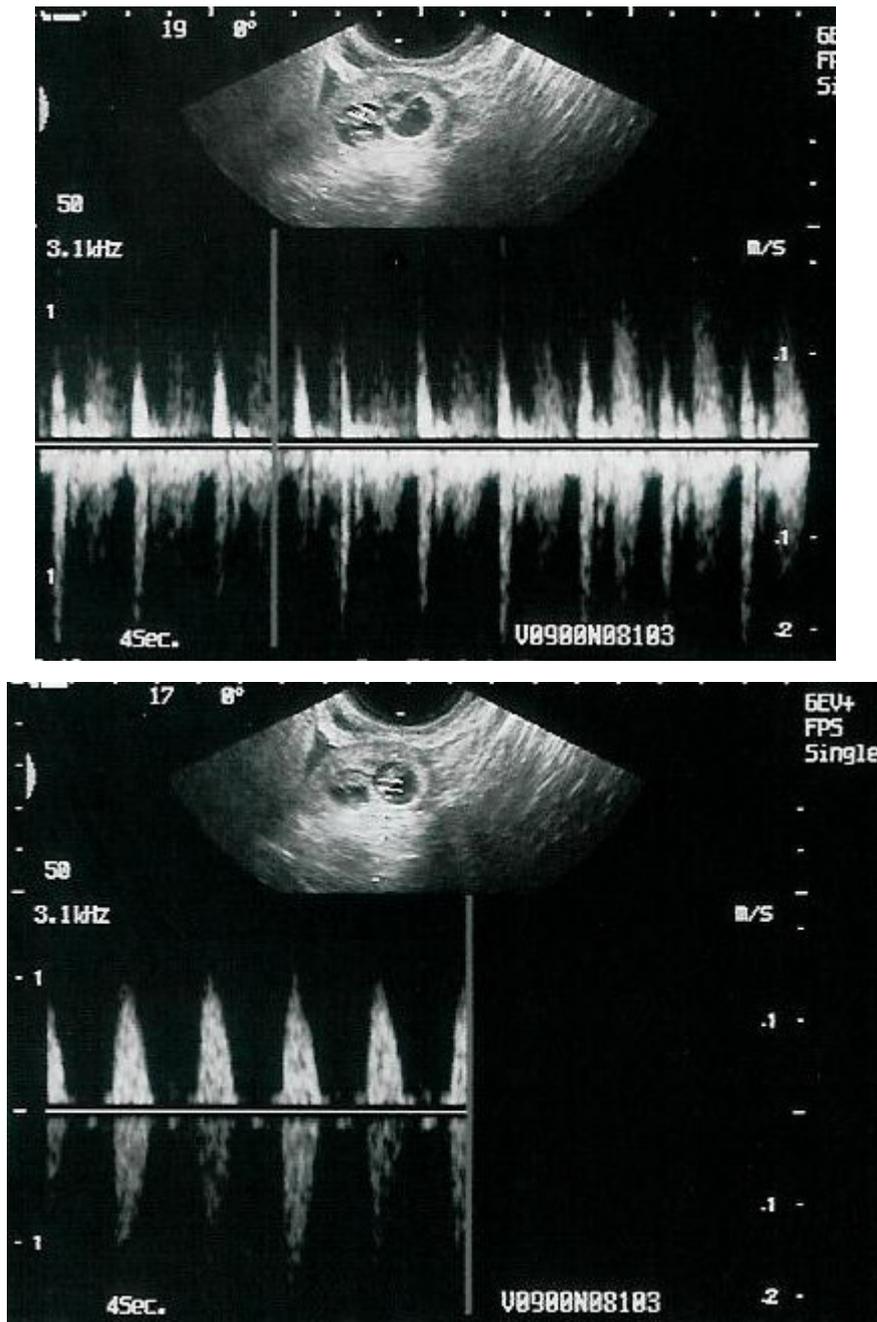
Live twin ectopic pregnancy is a rare condition with a incidence rate of 1:125,000 pregnancies.<sup>4</sup> The first case was described in 1891 by DeOtt<sup>5</sup> but only in 1944, live twin tubal ectopic pregnancy were reported, where fetal heartbeats were detected.<sup>6</sup>

Although there has been an increasing trend of ectopic pregnancies in the past 30 years, the number of unilateral twin ectopic pregnancies has not followed

**Figure 1.** Twin tubal ectopic pregnancy in ultrasound examination



Figure 2. Embryos viability: cardiac activity in both embryos



this trend.<sup>2</sup> There are only about 100 case reports of unilateral twin ectopic pregnancies published in the English literature, and only 8 of these cases had live twin tubal ectopic pregnancies diagnosed via transvaginal sonography.<sup>7</sup> Our case is one more example of spontaneous live unilateral twin tubal pregnancy diagnosed preoperatively. In this case the major risk

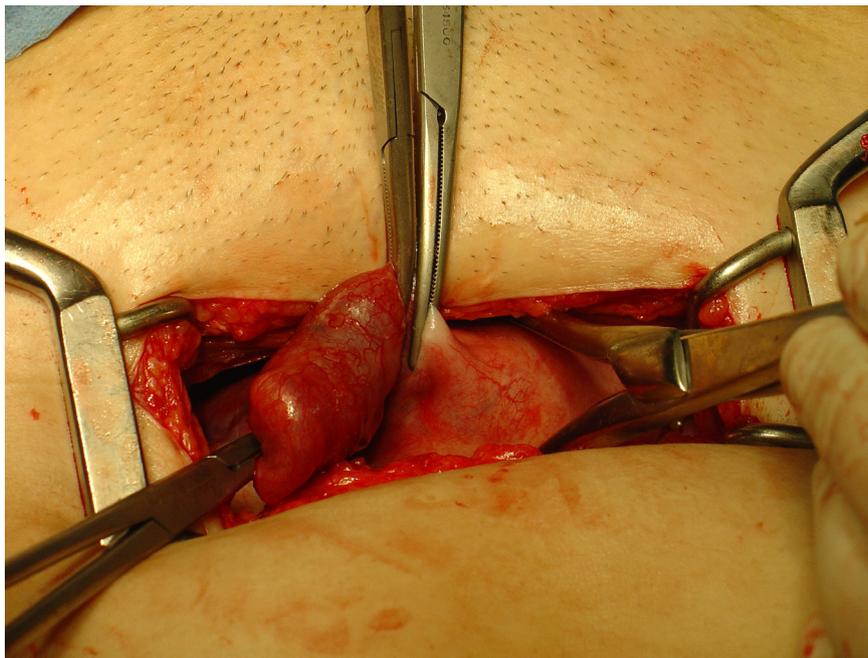
factor for an ectopic pregnancy was a previous pelvic surgery (cesarean section).

Women with a tubal pregnancy have diverse clinical manifestations that largely depend on whether there is rupture. Without early diagnosis, the natural history is characterized by variably delayed menstruation followed by slight vaginal bleeding or spotting.

**Figure 3.** Gestational age: 7weeks 2days



**Figure 4.** Left tube in laparotomy: flattened without signs of rupture



With rupture, there is usually severe lower abdominal and pelvic pain, accompanied or not by vasomotor disturbances (ranging from vertigo to syncope).<sup>3</sup>

Ectopic pregnancy are identified with the combined use of clinical findings, serum analyse testing

and transvaginal sonography. Various algorithms have been proposed, but most include five key components: transvaginal sonography, serum  $\beta$ -HCG level, serum progesterone level, uterine curettage, laparoscopy and occasionally laparotomy. The choice

**Figure 5.** Tubal dissection: separate gestational sacs with chorion between them



diagnosis algorithm applies only to hemodynamically stable women. Those with presumed rupture should undergo prompt surgical therapy.<sup>3</sup>

Medical and surgical options are effective for the treatment of ectopic pregnancy but patient's clinical scenario including the site and size of the ectopic pregnancy, initial  $\beta$ -HCG level and fetal cardiac activity, should determine the treatment. Although medical management with a single-dose intramuscular therapy with methotrexate is the standard for singleton and stable ectopic pregnancy, surgical intervention has been the management of choice, seen in the literature, for twin ectopic pregnancies. A case of spontaneous twin ectopic pregnancy, managed with the combination of local injection under ultrasound control and an intramuscular administration of methotrexate, has also been described.<sup>8</sup>

As a conclusion, an early detection of ectopic pregnancy is critical for a good outcome, since this entity is the leading cause of pregnancy-related death during the first trimester. Therefore, the degree of

suspicion must be high, especially in areas on high prevalence.

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