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## DIAGNOSIS AND MANAGEMENT OF SPONTANEOUS HETEROTOPIC PREGNANCY: A CASE REPORT

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### INTRODUCTION

Heterotopic pregnancy is the occurrence of pregnancies in at least two different implantation sites at the same time. Diagnosis of heterotopic pregnancy remains one of the greatest challenges in gynecological emergencies.

### CASE PRESENTATION

A 39-year-old woman, with no notable pathological history, G4P3A0, was referred from the emergency department for an opinion concerning lipothymia in a pregnant woman at 7 SA.

Our initial examination concluded an arrested intrauterine pregnancy of 7SA, associated with an effusion of moderate abundance with stable hemodynamic parameters under norepinephrine with an electric syringe pump at a speed of 1.5, with an initial hemoglobin of 10 g/dl, from which a complementary abdominopelvic CT scan and a control CBC were indicated.

2 hours later, the abdominopelvic scan revealed a large hemoperitoneum with a globular uterus containing a gestational sac and a healthy appendix, all consistent with pelviperitonitis of gynecological origin, with a control hemoglobin of 8 g/dl.

**The patient was still on the same noradrenaline rate.**

Diagnostic laparotomy was indicated in view of the deglobulation and abundant hemoperitoneum.

On examination, there was a large, clotted effusion <sup>(1)</sup> with a fissured right corneal EP. The patient underwent resection of the right cornea, right salpingectomy and aspiration, which brought back trophoblastic product.

**Diagnosis of heterotopic pregnancy (intrauterine and corneal) was confirmed**

The patient received 4 packed red blood cells and 6 fresh frozen plasma.

Vasoactive drugs were stopped with good evolution postoperatively.

## DISCUSSION

Heterotopic pregnancy is the combination of intrauterin pregnancy and Ectopic pregnancy. The first case was reported by Duvernet in 1708 during an autopsy [1]. Epidemiologically, the frequency of heterotopic pregnancies varies according to the series: from 1/30,000 in spontaneous pregnancies to 1/100 during MAP [2-3].

Heterotopic pregnancy is becoming increasingly frequent due to the resurgence of sexually transmitted infections, tubal surgery and, above all, the multiplication of ovulation-inducing treatments and in vitro fertilization techniques [2-3]. The risk factors for heterotopic pregnancy are the same as for EP.

Tubal infertility is also a risk factor. Indeed, MPA techniques have largely modified the epidemiological profile of heterotopic pregnancies [4]. For Sentihes et al [5], certain factors specific to MPA increase the risk of heterotopic pregnancy, such as: a high rate of embryo transfer, transfer close to a uterine horn, excessive pressure at the syringe, transfer difficulties and the presence of adhesions sequelae of endometriotic lesions. Finally, a history of abdominal or pelvic surgery has also been suggested [2,3].

Pathophysiologically, combined pregnancy may result from simultaneous fertilization or delayed fertilization (fertilization of two ova produced at short intervals during the same cycle by two spermatozoa from two successive coituses) [3,6].

Clinically, the classic triad of amenorrhea, metrorrhagia and pelvic pain is often found in combined pregnancies. The association of this triad with increased uterine volume is strongly suggestive of heterotopic pregnancy.

### **In our case, this triad was not observed.**

On the other hand, the diagnosis is difficult if the signs of IU pregnancy are in the foreground, with a picture of threatened abortion or miscarriage. This is a rare eventuality, but a serious one, as the signs of EP are masked by those of intrauterin pregnancy.

According to Parant et al [8], preoperative diagnosis of heterotopic pregnancy is made in only 10% of cases. Clinical findings are not very suggestive, hence the importance of paraclinical examinations. The -HCG level has no predictive value for the existence of a heterotopic pregnancy. Serial progesterone and estradiol determinations in combined pregnancies are identical to those in UGI. Pelvic ultrasonography is the main paraclinical examination for the diagnosis of a combined pregnancy [9,10].

For Tal et al [6], the combination of clinical and ultrasound data enables 41.1% of heterotopic pregnancies to be diagnosed.

This results in more rapid diagnosis and management [7]. The later the diagnosis, the worse the maternal prognosis. The aim of treatment of heterotopic pregnancy is to eliminate the EP by preserving the UGI as much as possible, to preserve the patient's subsequent fertility and to limit the risk of recurrence. Treatment may be medical or surgical. Laparotomy is increasingly being replaced by laparoscopy. Laparotomy remains indicated if the hemodynamic state is unstable, which is the case for our patient. Surgical treatment, even by laparotomy, does not appear to interfere with the development of UGI, provided that uterine manipulation is minimal and anesthesia of short duration; prophylactic tocolysis is debatable [2,7].

## Conclusion

The diagnosis of heterotopic pregnancy should not be ruled out by the discovery of an IGU in a spontaneous cycle. Diagnosis is often difficult, and management must be initiated as soon as possible, given the risk of maternal mortality.



**Figure 1** (Cornual fissure pregnancy.)

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