Casos clinicos

# Heterotopic pregnancy: a case report

# Embarazo heterotopico: reporte de un caso

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**Abstract:** It is presented a case report of a 36-year-old female patient, born in Cochabamba, with tubal ectopic pregnancy in the right tube, associated with an intrauterine pregnancy of 6.4 weeks of gestation by FUM, with no personal or family pathological history of clinical relevance; she was treated surgically at the Hospital Obrero No. 2 CNS, opting for laparotomy with salpinguectomy; prevention of intrauterine sac abortion was performed with satisfactory results.

**Keywords:** heterotopic pregnancy, ectopic pregnancy.

**Resumen:** Se presenta el caso clínico de una paciente de sexo femenino de 36 años de edad, natural de Cochabamba, con embarazo ectópico tubárico en la trompa derecha, asociado a un embarazo intrauterino de 6.4 semanas de gestación por FUM, sin antecedentes patológicos personales ni familiares de relevancia clínica; fue tratada quirúrgicamente en el Hospital Obrero Nro 2 CNS, optándose por la laparotomía con salpinguectomía; se realizó prevención de aborto del saco intrauterino con resultados satisfactorios.

**Palabras clave:** embarazo heterotópico, embarazo ectópico.

Heterotopic pregnancy is the combination of an intrauterine pregnancy with an extrauterine pregnancy[1], and is an infrequent pathology, even in spontaneously achieved pregnancies, although it is an exceptional situation, it is one of the leading causes of first trimester mortality. The incidence in the general population is 0.3 per 10 000 pregnancies, but in the last twenty years it has been increasing in conjunction with the rising incidence of pelvic inflammatory disease (2.5 to 6.25 per 10 000), the use of intrauterine devices (IUD), the performance of tubal surgery, pharmacological ovulation stimulation (33 per 10 000) and the use of assisted reproductive techniques (100 per 10 000 pregnancies[1].

The overall incidence has now increased to an estimated 1.25 per 10 000 pregnancies. Clinical manifestations may be atypical, similar to those of other pathologies, which forces us to make a differential

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diagnosis; a detailed clinical examination, the beta fraction of human chorionic gonadotropin and transvaginal ultrasound play a decisive role in the diagnosis[2] .

## Case presentation

A 36-year-old female patient was admitted to the Gynaecology and Obstetrics Emergency Department of the Hospital Obrero No 2 CNS with clinical symptoms of 4 days' evolution, characterised by chocolate-coloured transvaginal bleeding and contractile-type pain in the hypogastrium, with an intensity of 6-8, accompanied by diaphoresis and nausea, with amenorrhoea for 6 to 4 weeks and a history of gynaecological and obstetric symptoms.4 weeks and a gynaeco-obstetric history of two first trimester abortions 10 and 5 years ago respectively, as the only risk factor for ectopic pregnancy.

On physical examination, the patient had an enlarged fascia, a soft depressible abdomen, painful on deep palpation in the right iliac fossa, with no signs of peritoneal reaction, nor evidence of transvaginal leakage or cervical changes at the time of the examination.

Transvaginal ultrasound revealed uterus in AVF of normal shape and contours, enlarged dimensions at the expense of orthotopic gestational sac with single live 7 mm LCC embryo with cardiac activity (Figure 1), corresponding to six weeks of gestation, a 31x19 mm ovoid adnexal formation in right adnexa; Douglas with scant free fluid.

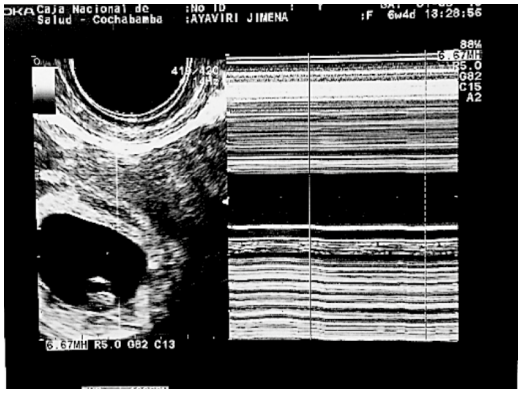


FIGURE 1.
Transvaginal ultrasound orthotopic gestational sac with single live 7 mm LCC embryo with cardiac activity

It was concluded that this was a heterotopic pregnancy: an intrauterine pregnancy of 6.4 weeks with confirmed vitality and a right tubal ectopic pregnancy (Figure 2).

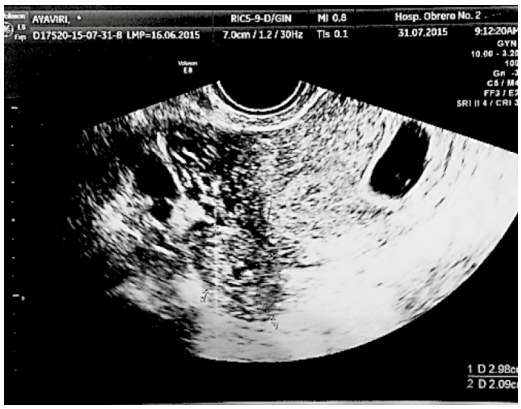


FIGURE 2.
31 x 19 mm ovoid adnexal formation in right adnexa; heterotopic pregnancy: one 6.4 week viable intrauterine and one right tubal ectopic.

With these findings, it was decided to treat the patient surgically. During the surgical procedure, haemoperitoneum of 300cc was found, enlarged uterus, right tube with swollen, congestive, intact walls with the presence of a mass of 4 x 3 cm in a thickened ampullary zone with a diameter of more or less 2 cm, compatible with ectopic pregnancy. Both ovaries and left salpingeum were unaltered, right salpingectomy was performed and the peritoneal cavity was washed with 1500 cc of physiological solution.

The pathological study revealed a swollen salpingeal wall, with oedema and congestion and chorionic villi, compatible with tubal ectopic pregnancy. Postoperative evolution was favourable, and a transvaginal ultrasonography was performed which revealed a vital intrauterine embryo (Figure 3). The patient was discharged two days after the operation, receiving micronised natural progesterone 400 mg vaginally every day.


FIGURE 3.
Transvaginal ultrasonography: single live embryo of 9.3 mm LCC, with cardiac activity

## Discussion

Approximately 70% of heterotopic pregnancies are diagnosed between 5-8 weeks gestational age, 20% between 9-10 weeks, and the remaining 10% beyond 11[3] weeks.

The variable presentation presents a challenge to the clinician because symptoms and signs of heterotopic pregnancy are often associated with those of normal pregnancy, ranging from subtle or non-existent to common signs and symptoms such as: abnormal vaginal bleeding ranging from spotting to severe bleeding, abdominal pain in the hypogastrium increasing in intensity radiating to the iliac fossa, signs of peritoneal

irritation indicative of intraperitoneal blood collection, as well as pain on cervical mobilisation. The clinical manifestation varies depending on the time of diagnosis, with early diagnosis being decisive and important for modifying the morbidity and mortality of the patient and her reproductive future[4] .

The first and most conclusive diagnostic method is endovaginal or pelvic ultrasound, depending on the patient's condition; however, it is not easy to make the diagnosis when no embryo is identified in the extrauterine pregnancy. Ultrasonographic visualisation of embryonic cardiac activity outside the uterus and another intrauterine embryo is a pathognomonic sign of heterotopic pregnancy. Ultrasonographic differential diagnosis includes uteruses with gravid MÜLLERIAN anomalies, such as complete bicornuate and didelphic uterus, ruptured haemorrhagic corpus luteum, and intrauterine pregnancies with adnexal masses to be determined. The ultrasonographic detection rate of heterotopic pregnancy in asymptomatic women is 15.8% and can range from 41 to 84% in women with pelvic pain. The prognosis of intrauterine pregnancy depends on early clinical and ultrasound diagnosis[4,5].

Diagnosis may also be made on finding during exploratory laparotomy in patients with a diagnosed intrauterine pregnancy and an unsuspected ectopic in the context of an acute abdomen. The fetal mortality rate for extrauterine pregnancy is about 98% and for intrauterine pregnancy between 45 and 65%[6].

Treatment of heterotopic pregnancy is surgical, with early salpingectomy or salpingostomy performed by laparoscopy or laparotomy, in order to allow the intrauterine embryo to survive and avoid maternal complications[6].

## Conclusion

The diagnosis of heterotopic pregnancy is not easy due to the diverse clinical manifestations and the existence of intrauterine pregnancy that continues the production of beta-fraction of human chorionic gonadotropin. In early pregnancy a thorough and detailed clinical examination with ultrasound visualisation of the uterus and adnexa is an important pillar in the diagnosis and early identification of this pathology. Laparoscopy is described as the safest approach, with fewer complications and better maternal and perinatal outcomes.

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