

CASE REPORT

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Secondary abdominal ectopic pregnancy

Embarazo ectópico abdominal secundario

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ABSTRACT

Abdominal ectopic pregnancy is a rare form of ectopic pregnancy. It accounts for 1.4% of these cases, with significant morbidity and mortality. We present the case of a 24-year-old woman with secondary abdominal pregnancy, diagnosed after 5 days of unresponsive management of missed abortion. During laparotomy, hemoperitoneum and the presence of a suprauterine chorioamniotic cocoon were found. Complete removal of the fetus and placenta was performed, preserving the uterus and left adnexa. Despite the rarity, early diagnosis by ultrasound was crucial. Surgical management, often necessary, was challenging, but in early cases such as ours, complete removal can avoid further complications. The importance of early recognition and management of secondary abdominal pregnancy is emphasized.

Key words: Pregnancy, ectopic, Pregnancy, abdominal, Case management

RESUMEN

El embarazo ectópico abdominal es una rara forma de embarazo ectópico. Constituye el 1,4% de estos casos, con significativa morbilidad y mortalidad. Presentamos el caso de una mujer de 24 años con embarazo abdominal secundario, diagnosticado tras 5 días de ausencia de respuesta al manejo del aborto frustrado. Durante la laparotomía se encontró hemoperitoneo y la presencia de un capullo corioamniótico suprauterino. Se realizó la extracción completa del feto y la placenta, preservando el útero y el anexo izquierdo. A pesar de la rareza, el diagnóstico precoz mediante ecografía fue crucial. El manejo quirúrgico, a menudo necesario, fue desafiante, pero en casos tempranos como el nuestro la extracción completa puede evitar complicaciones adicionales. Se destaca la importancia del reconocimiento y manejo oportunos del embarazo abdominal secundario.

Palabras clave. Embarazo ectópico, Embarazo abdominal, Manejo de caso

INTRODUCCIÓN

Abdominal ectopic pregnancy, an extremely rare form of ectopic pregnancy, is characterized by implantation in the peritoneal surfaces, excluding the fallopian tubes, ovaries and broad ligaments⁽¹⁾. With an incidence of 1/10,000 to 1/30,000 pregnancies⁽²⁾, it represents only 1.4% of all ectopic pregnancies⁽³⁾. Despite its rarity, its clinical significance is notable for the high morbidity and mortality rates associated with it, with 95% perinatal mortality and 18% maternal mortality, mainly due to hemorrhagic and infectious complications⁽¹⁾.

The Studdiford classification identifies two types of abdominal ectopic pregnancy: primary, which is exceptionally rare and results from direct implantation of the blastocyst in the abdominal cavity, and secondary, which occurs when an egg previously implanted in the fallopian tube, ovary or uterus moves into the abdominal cavity⁽⁴⁾, either by secondary implantation from an aborted tubal pregnancy, rupture of a cornual pregnancy or intra-abdominal fertilization⁽⁴⁾.

Risk factors such as a history of pelvic inflammatory disease, smoking, fallopian tube surgery, previous ectopic pregnancy, endometriosis, assisted reproductive techniques and infections predispose patients to this complication⁽²⁾. The clinical presentation varies from asymptomatic to abdominal pain and hypovolemic shock. Diagnosis is made by ultrasound, with MRI being useful in complex cases⁽⁵⁾.



Management involves evaluation of maternal and fetal symptomatology, with emergency laparotomy as the primary option due to potential complications. Advanced abdominal ectopic pregnancy presents significant risks, while conservative management is uncommon⁽⁵⁾. Early recognition and effective intervention are crucial to optimize maternal and fetal outcomes in this rare condition.

CASE REPORT

A 24-year-old female patient with obstetric formula G2 P2002 was admitted to the obstetric emergency room of the Regional Hospital of Ayacucho, Ayacucho, Peru, with a diagnosis of missed abortion at 14 weeks of pregnancy, vaginal bleeding and abdominal pain. After five days of stationary evolution and no response to induction with misoprostol and mechanical cervical dilatation techniques (Krause method), the case was reevaluated and a new obstetric ultrasound was requested, which revealed an empty uterus and a fetus outside the uterine cavity, compatible with abdominal ectopic pregnancy and the presence of free fluid in the abdominopelvic cavity (Figures 1A, 1B). Given the suspicion of hemoperitoneum and probable abdominal ectopic pregnancy, a surgical approach was chosen. Laboratory studies showed hemoglobin

9 g/dL, blood group O Rh+, platelets 274,000/mL, glucose 98, urea 19.1 mg/dL and creatinine 0.81 mg/dL.

An exploratory laparotomy was performed by transverse suprapubic incision, revealing a hemoperitoneum of 500 mL. During surgical exploration, a medial suprauterine plastron mass was identified, compatible with the chorioamniotic bud of 15 cm (Figures 2A, 2B), from which a fetus without cardiac activity of approximately 14 weeks was extracted (Figure 2C). In addition, release of the involved omentum and excision of the peritoneal mass containing placenta and ovarian membrane was done (Figures 2D, 2E). Placental involvement was limited to the omentum and right tube (Figure 2F), preserving the uterus and the contralateral adnexa.

We proceeded to transfuse 2 units of packed red blood cells, achieving a post-transfusion hemoglobin control of 12 g/dL. The macroscopic intraoperative finding (Figures 3A, 3B) was confirmed by the anatomopathological study, showing in microscopy the insertion of trophoblastic tissue in epiploic fatty tissue (Figure 4A). The anatomopathological examination of the tumor showed the presence of syncytiotrophoblast cells in the omentum tissue, with dense invasion and presence of villi in fat tissue (Figure 4B).

FIGURE 1. A. OBSTETRIC ULTRASOUND SHOWING EMPTY UTERUS (*) NEXT TO THE BLADDER (**) AND FETAL SKULL (***). B. FETUS (*) AND PLACENTA (**) WITHOUT SURROUNDING MYOMETRIUM.

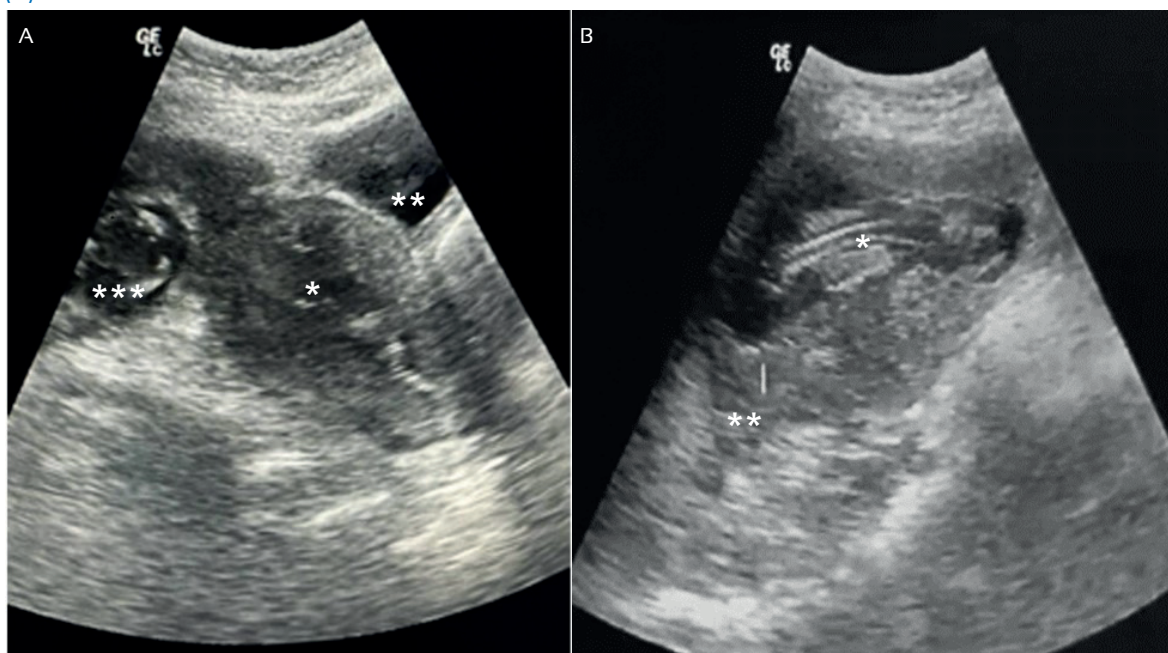
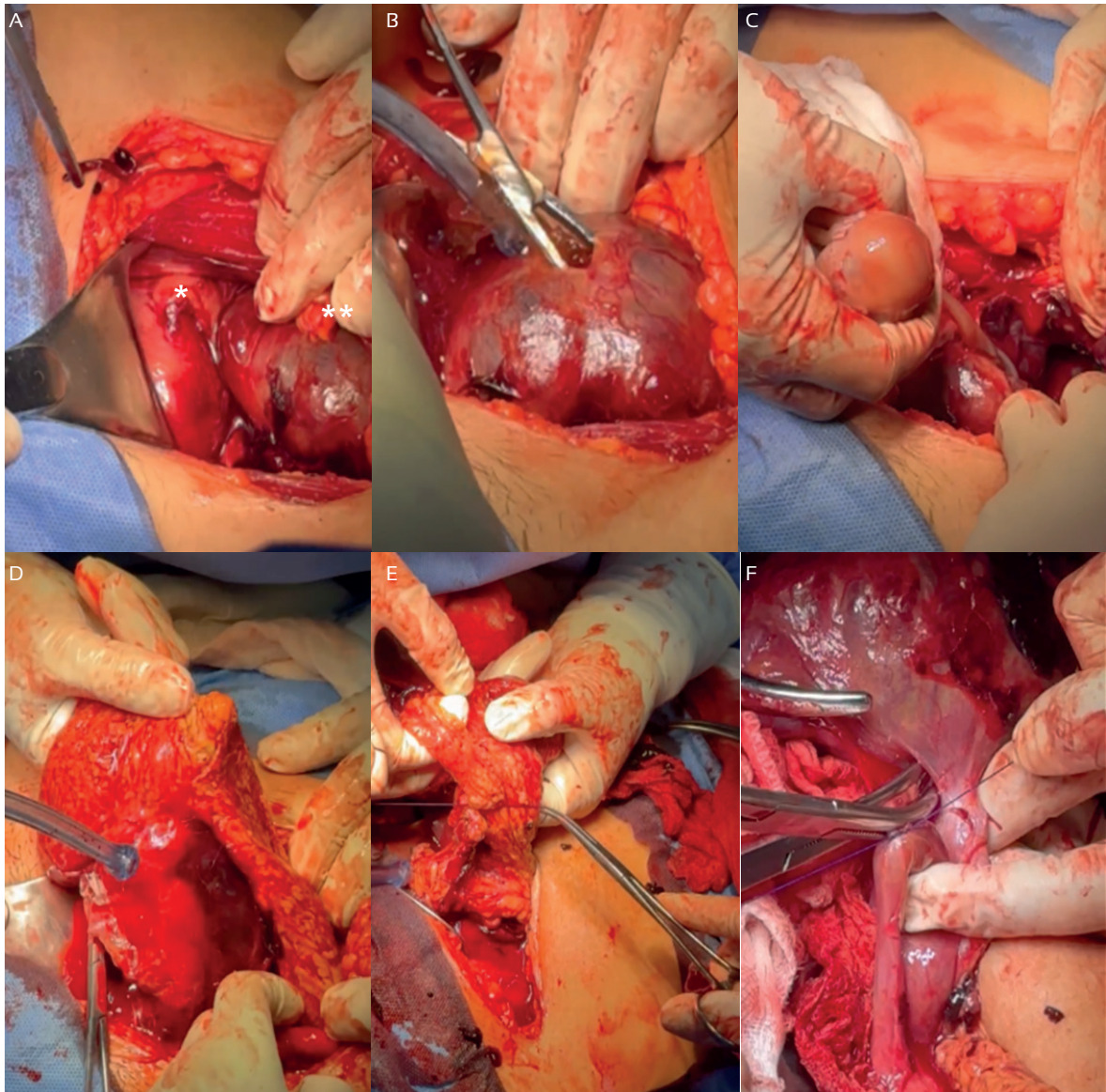




FIGURE 2. SURGICAL PROCEDURE: A. UTERUS (*) AND BUD (**). B. CHORIOAMNIOTIC BUD WITH RUPTURE OF THE PLACENTAL BED. C. EXTRACTION OF THE FETUS THROUGH THE OPENING OF THE COCOON. D. ADHESION TO THE OMENTUM, E. SEPARATION OF OMENTUM AND COCOON. F. INJURED THROMBUS.



The patient evolved favorably, with no complications during the immediate postoperative period, and was discharged on the third day. Long-term follow-up showed no clinical sequelae or associated complications, supporting the efficacy of early surgical management in this case.

DISCUSSION

For the identification of abdominal ectopic pregnancy, Studdiford proposed three fundamental criteria: 1) preservation of normal uterine tubes and ovaries, 2) absence of uteroperitoneal fistula, and 3) exclusive relationship of the pregnancy with the peritoneal surface, with no evidence of

secondary implantation after primary tubal nidation. It is considered primary if it meets all three criteria or secondary in the absence of any of them⁽⁶⁾. In our particular case, not all the criteria established by Studdiford were met. Therefore, it was called secondary abdominal ectopic pregnancy since it developed in the omentum and affected the right tube by secondary implantation.

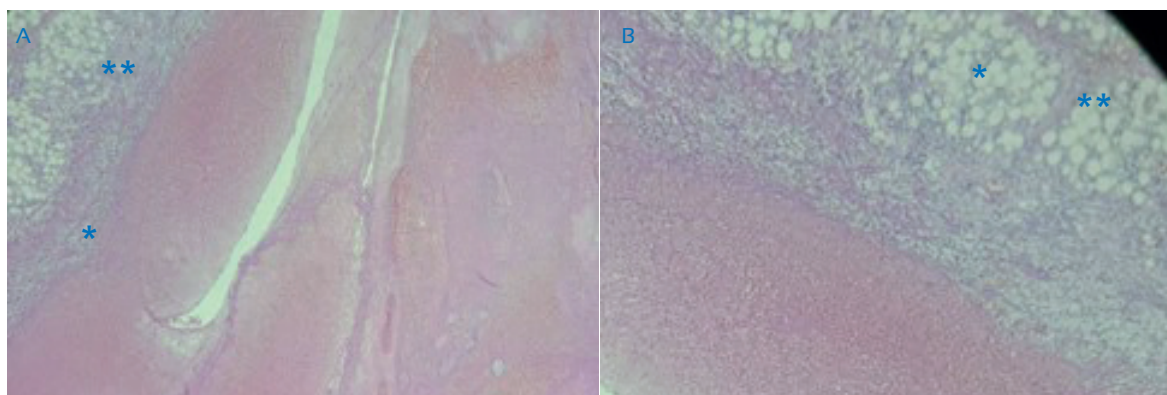
This condition accounts for approximately 1.4% of all ectopic pregnancies, with an estimated incidence of 1/10,000 live births⁽³⁾. It is associated with significant maternal mortality, with an estimated rate of 5/1,000 cases, being 7.7 times higher than that associated with tubal ectopic



FIGURE 3. MACROSCOPIC STUDY: A. FETUS WITHOUT CARDIAC ACTIVITY OF APPROXIMATELY 14 WEEKS EXTRACTED FROM THE CHORIOAMNIOTIC COCOON. B. CHORIONIC AMNIOTIC SAC.



FIGURE 4. ANATOMOPATHOLOGICAL STUDY: A. VIEW OF THE INSERTION OF TROPHOBLASTIC TISSUE (*) IN THE EPILOIC FATTY TISSUE (**). B. FATTY TISSUE OF THE OMENTUM (*), WHERE PLACENTAL TISSUE WAS FOUND (**).



pregnancy and 90 times higher than that of intrauterine pregnancies⁽³⁾.

Regarding clinical presentation, amenorrhea and abdomino-pelvic pain are highlighted as the main maternal symptoms⁽³⁾. In our case, the predominant symptoms were vaginal bleeding - part of the process of decidual detachment - and abdominal pain, caused by hemoperitoneum and peritoneal irritation.

However, the persistence of these symptoms and the lack of a thorough clinical reevaluation led to a delay in the correct diagnosis. In addition, the initial incorrect interpretation of the emergency ultrasound performed abdominally rather than transvaginally, along with the fetal size and

fetal gestational age, led to ruling out an ectopic pregnancy. The increased hemoperitoneum, confirmed during exploratory laparotomy, highlights the importance of performing detailed clinical and ultrasound evaluations when initial treatments are ineffective, as well as considering differential diagnoses - including abdominal ectopic pregnancies - in cases of complicated miscarriages.

Ultrasonography plays an essential role in the diagnostic process, revealing signs such as identification of an empty uterus contiguous to the bladder, location of the fetus outside the uterus in proximity to the maternal abdominal wall, lack of myometrial wall around the fetus, abnormal fetal postures and poor definition of placental location⁽⁷⁻⁹⁾, as evidenced in the present case.



Abdominal ectopic pregnancy remains an uncommon entity that presents challenges in both early diagnosis and management, especially with regard to surgical resection of the placenta, which can result in bleeding and hemorrhagic shock. Careful surgical dissection of the placenta from the intestinal organs, as noted by Yildizhan, reduces the risk of complications⁽⁹⁾. In our case, the patient's placenta did not show significant invasion into other organs, which facilitated its resection by affecting the distal end of the right tube and omentum, avoiding additional treatments. Regarding the management of placental tissue, it is observed that its complete exeresis is more feasible in the earlier stages of pregnancy, and in some cases, laparoscopy can be considered as a viable option⁽¹⁰⁾. Despite being a case of 14 weeks, placental involvement was limited to the omentum and right tube, preserving the uterus and the contralateral adnexa.

Nunyalulendho reported 163 cases between 1946 and 2008⁽¹⁰⁾, highlighting that there is no standardized protocol for the management of this pathology. Although it is common to terminate the pregnancy at the time of diagnosis, expectant management has been contemplated in asymptomatic cases, with strict surveillance and awaiting fetal viability⁽¹¹⁾. This viability is generally achieved between 32 and 34 weeks, and the consensus is not to exceed the gestational age limit at which fetal viability is achieved at the referral center. Exploratory laparotomy is considered the best surgical option to control intraoperative bleeding. The most frequent complications include hemorrhage and infection, with a maternal mortality rate of 12%⁽¹⁰⁾. In our case, this was an early abdominal ectopic pregnancy with absence of fetal cardiac activity, which allowed complete surgical resection of the placenta, controlling hemorrhage without resorting to methotrexate treatment.

At the national level, perinatal survival outcomes vary considerably. Gamboa⁽¹²⁾ describes favorable results with live births, while Elías⁽¹³⁾ and Falcón⁽¹⁴⁾ reported adverse perinatal outcomes, especially in advanced abdominal ectopic pregnancies. In early cases, such as the one we present, where fetal deliveries are more common, conservative surgical management stands out as the best treatment.

The case presented highlights the complexity of secondary abdominal ectopic pregnancy. The late diagnosis highlights the need for high clinical suspicion and prompt surgical intervention. Preservation of vital organs was crucial for successful treatment. The importance of specialized care to ensure favorable outcomes in such rare cases is highlighted.

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