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## Successful intrabdominal preterm pregnancy: A case report

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# SUCCESSFUL INTRA-ABDOMINAL PRETERM PREGNANCY: A CASE REPORT

EMBARAZO PRETÉRMINO INTRABDOMINAL EXITOSO: REPORTE DE CASO

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## ABSTRACT

**Introduction:** Ectopic pregnancy is any gestation in which the implantation site of the fertilized egg is located outside the endometrial cavity. Abdominal ectopic pregnancy represents 1.4% of these. **Case report:** 28-year-old patient with two previous cesarean sections; bilateral tubal obstruction during the last operation. The patient was admitted to the hospital with blood pressure of 180/130 mm Hg that did not respond to medical treatment and not progression to labor so it was decided to interrupt the pregnancy by cesarean section. During surgery, a small uterus with extrauterine pregnancy was observed adhered to the serosa of the cecum, ascending colon, and appendix. A live preterm female product was obtained; the mother had a favorable evolution and no postoperative complications. **Conclusion:** Ectopic pregnancies are rare. An adequate prenatal control by well trained personnel is essential for an accurate diagnosis. The mother and the newborn did not present any complication. It is very important to have an accurate and opportune diagnosis so trained personnel can offer an adequate management.

**Keywords:** Ectopic pregnancy; Abdominal pregnancy; Caesarean section; Placenta. (Source: MESH-NLM)

## RESUMEN

**Introducción:** El embarazo ectópico es toda gestación, en la que el sitio de implantación del óvulo fecundado se localiza fuera de la cavidad endometria y representa el 1.4 % de estos. **Caso clínico:** Paciente de 28 años con dos cesáreas previas, sometida a salpingoclasia durante la última intervención. La paciente ingresó al hospital con presión arterial de 180/130 mm Hg, no respondió a tratamiento médico y presentó falla en la progresión de trabajo de parto, por lo que se decidió interrupción por operación cesárea. Durante la cirugía, se observó un pequeño útero con embarazo extrauterino adherido a la serosa del ciego, el colon ascendente y el apéndice. Se obtuvo un producto femenino pretérmino vivo; la madre cursó con evolución favorable y sin complicaciones posoperatorias. **Conclusión:** La presentación del embarazo abdominal ectópico es rara, por lo que un control prenatal adecuado por personal capacitado puede orientar a la sospecha diagnóstica. La madre y la recién nacida no presentaron ninguna complicación, a pesar de ser un embarazo abdominal avanzado y la inserción multifocal de la placenta. Se resalta la importancia del manejo oportuno y multidisciplinario cuando se enfrentan embarazos con curso anormal para la mejor evolución de la madre y del producto.

**Palabras clave:** Embarazo ectópico; Embarazo abdominal; Cesárea; Placenta. (Fuente: DeCS- BIREME)

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## INTRODUCTION

Ectopic pregnancy is defined as any pregnancy in which the implantation site of the fertilized ovum is located outside the endometrial cavity. This type of pregnancy represents 1.5% to 2% of all pregnancies<sup>(1)</sup>. The most common implantation site for ectopic pregnancies is the fallopian tube<sup>(2)</sup>.

Approximately 10% implant in non-tubal locations such as the cervix, ovary, interstitial portion of the fallopian tube, broad ligament, uterine horn, cesarean scar, and abdominal cavity<sup>(3)</sup>. The latter represents only 1.4% of ectopic pregnancies, with an incidence of 1 in 10,000 births<sup>(4)</sup>. The most significant risk factors for ectopic pregnancy include previous tubal pregnancy, prior tubal surgery and ligation, unintended pregnancy as a complication, tubal pathology, and intrauterine device (IUD) use<sup>(5)</sup>.

Abdominal pregnancy occurs when the fertilized ovum implants in the peritoneal cavity. Common implantation sites include the uterine serosa, diaphragm, pelvic vessels, liver, spleen, intestine, omentum, pelvic wall, and broad ligament<sup>(4)</sup>. A history of assisted fertilization is noteworthy<sup>(6)</sup>. Clinical presentation ranges from asymptomatic to acute abdominal pain depending on the corresponding gestational age. Diagnosis is intraoperative in 50% to 90% of cases<sup>(7)</sup>. Ultrasound is the diagnostic test of choice, with a specificity of 94% and sensitivity of 87%<sup>(8)</sup>. Maternal mortality is primarily caused by uncontrollable hemorrhage, with a high rate of up to 5 per 1000 cases<sup>(7)</sup>.

The diagnostic challenges and therapeutic approach in these patients are illustrated in the following case.

## CLINICAL CASE

A 28-year-old patient at 37 weeks of pregnancy presented for a third-trimester ultrasound with inadequate prenatal care and a history of two previous

cesarean deliveries, followed by tubal ligation. She was admitted to a rural hospital with a diagnosis of moderate hypertensive disorder of pregnancy, with a blood pressure of 180/130 mmHg and a hemoglobin level of 11.8 mg/dl. Pharmacological management for hypertension was initiated but failed to achieve adequate control, and there was no progression in labor, leading to a decision for abdominal delivery.

During the surgical intervention, a small uterus with an amniotic sac in the peritoneal cavity was found. The abdominal cavity was closed, and the patient was referred with a diagnosis of abdominal ectopic pregnancy to a secondary-level hospital as the initial hospital lacked the necessary infrastructure.

At the secondary-level hospital, amniorrhexis was performed as a second intervention, resulting in the delivery of a live female neonate without facial or limb anomalies, estimated at 34.4 weeks of gestation by Capurro scale (Figure 1). Subsequently, meticulous dissection of the placenta was performed, which was adhered to the omentum, appendix, cecum, and ascending colon serosa (Figure 2). The decision to remove the placenta was made to prevent potential complications, since it was loosely adhered to the serosa and, being very close to the ileocecal valve, it could cause obstruction during its involution and reabsorption; therefore, it did not require leaving it in situ. The maternal side of the placenta was found without cotyledon formation (Figure 3). Fetal surface of the placenta without malformations (Figure 4). The mother did not present intestinal perforation or additional complications.

She was transferred to the Intensive Care Unit (ICU) for monitoring and was discharged from the hospital 48 hours post-surgery with her baby without complications. Follow-up visits at 15- and 30-days post-surgery reported normal progress.



**Figure 1.** Presence of an intra-abdominal pregnancy female product at 34.4 weeks of gestational age.



**Figure 2.** Placenta adhered to the serosa of the ascending colon and appendix.







**Figure 3.** Maternal surface of the placenta.



**Figure 4.** Fetal surface of the placenta.



## DISCUSSION

during follow-up. Placental manipulation often poses challenges due to difficulty in isolating blood supply. Frequently, leaving the placenta in situ with administration of methotrexate or a second surgical intervention for removal is preferred. Complications can include uncontrollable bleeding, disseminated intravascular coagulation, intestinal obstruction, and gastrointestinal or genitourinary fistulas<sup>(11,12)</sup>.

Regardless, careful monitoring must be maintained. Abdominal pregnancy is a rare condition associated with high maternal mortality. Diagnosis is often delayed due to inadequate prenatal care, as seen in this case. Abdominal pregnancies can remain undetected until late gestational ages, depending on the site of implantation and involved organic structures<sup>(9)</sup>.

During gestation, the patient did not exhibit symptoms suggestive of abdominal ectopic pregnancy. The reason for hospital admission was uncontrolled hypertensive disorder of pregnancy. In cases like this, nonspecific or asymptomatic clinical presentation poses a challenge for timely diagnosis<sup>(6)</sup>. In this reported case, the patient underwent surgical intervention in two stages: initially, the decision was made to discontinue the procedure due to the complexity of the case and was referred to a hospital with better infrastructure.

The neonate in this case did not experience structural complications. The incidence of malformations in live births from abdominal pregnancies is 23%<sup>(9)</sup>, and up to 43.84% result in stillbirths or early neonatal deaths<sup>(10)</sup>. The implantation at multiple sites (omentum, cecum, ascending colon, and cecal appendix) in this case was also an uncommon presentation, as only 5.79% of ectopic abdominal pregnancies involve three or more placental implantation sites<sup>(10)</sup>.

In this case, meticulous placental resection was achieved with complete surgical removal despite its multifocal presentation, and no complications were observed. The placenta may be removable without causing massive bleeding, as in cases of adherence to the omentum. The preferred management is leaving the placenta in the cavity. Accumulation of necrotic tissue in larger quantities would favor intra-abdominal infection.

Currently, the use of methotrexate is not recommended as it rapidly degrades placental tissue, leading to abundant necrotic tissue and increased infection risk. The surgical decision regarding placental management is highly controversial; some authors recommend placental extraction, associated with a lower complication rate but also a higher maternal mortality rate. The decision to extract it or not depends on the site of implantation<sup>(14)</sup>.

Also noteworthy is the favorable outcome of the neonate, without complications typical of premature infants, possibly due to the action of gestational hypertensive disorder. Cases that progress beyond 20 weeks, as in this case, are very rare. Both the mother and the newborn did not experience any complications typical of advanced abdominal pregnancy and multifocal placental insertion.

## CONCLUSION

The case presentation of ectopic abdominal pregnancy is rare, underscoring the importance of adequate prenatal care provided by trained personnel to guide diagnostic suspicion. Despite being an advanced abdominal pregnancy with multifocal placental insertion, neither the mother nor the newborn experienced complications. This case highlights the significance of timely and multidisciplinary management when faced with pregnancies deviating from the norm, ensuring optimal outcomes for both mother and child.

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