

From suspected ruptured ectopic pregnancy to the finding of grade III pelvic inflammatory disease: differential diagnosis in gynecological acute abdomen

De la sospecha de embarazo ectópico roto al hallazgo de EPI grado III: diagnóstico diferencial en abdomen agudo ginecológico

Itzel Fernández Echeverría, Vicente Panameño Cruz, Dr. Eugenio Guerra Cárdenas*

Abstract

Gynecological acute abdomen represents a significant diagnostic challenge due to the clinical overlap of various potentially life-threatening conditions. Ectopic pregnancy, defined as implantation of the blastocyst outside the endometrial cavity, and tubo-ovarian abscess, usually secondary to advanced pelvic inflammatory disease, share clinical manifestations such as pelvic pain, peritoneal irritation, and systemic involvement, which may hinder timely differentiation. The objective of this report was to describe a clinical case involving the coexistence of a left tubo-ovarian abscess and a contralateral incipient ectopic pregnancy, highlighting the diagnostic and surgical challenges in the management of gynecological acute abdomen. An observational, descriptive, and retrospective case report was conducted, based on a review of the medical record, imaging studies, and surgical findings of a 19-year-old female patient treated at a secondary-level hospital. The patient presented with hypogastric and left iliac fossa pain, scant transvaginal bleeding, and a positive immunological pregnancy test, initially suggesting a ruptured ectopic pregnancy. However, during exploratory laparotomy, a left tubo-ovarian abscess secondary to grade III pelvic inflammatory disease was identified, coexisting with an incipient ectopic pregnancy in the contralateral fallopian tube. This case illustrates the diagnostic complexity of gynecological acute abdomen and underscores the importance of comprehensive assessment, careful interpretation of clinical and paraclinical findings, and timely surgical intervention to prevent septic complications and preserve fertility.

Keywords: ectopic pregnancy; tubo-ovarian abscess; gynecological acute abdomen; pelvic inflammatory disease; case report

Resumen

El abdomen agudo ginecológico representa un reto diagnóstico significativo debido a la superposición clínica de diversas entidades potencialmente graves. El embarazo ectópico, definido como la implantación del blastocisto fuera de la cavidad endometrial, y el absceso tubo-ovárico, generalmente secundario a enfermedad pélvica inflamatoria avanzada, comparten manifestaciones clínicas como dolor pélvico, irritación peritoneal y compromiso sistémico, lo que puede dificultar su diferenciación oportuna. El objetivo de este reporte fue describir un caso clínico de coexistencia entre absceso tubo-ovárico izquierdo y embarazo ectópico incipiente contralateral, destacando los retos diagnósticos y quirúrgicos en el manejo del abdomen agudo ginecológico. Se realizó un estudio observacional, descriptivo y retrospectivo tipo reporte de caso, basado en la revisión del expediente clínico, estudios de gabinete y hallazgos quirúrgicos de una paciente femenina de 19 años atendida en un hospital de segundo nivel. La paciente ingresó con dolor hipogástrico y en fosa iliaca izquierda, sangrado transvaginal escaso y prueba inmunológica de embarazo positiva, lo que orientó inicialmente al diagnóstico de embarazo ectópico roto. Sin embargo, durante la laparotomía exploradora se identificó un absceso tubo-ovárico izquierdo secundario a enfermedad pélvica inflamatoria grado III, coexistiendo con un embarazo ectópico incipiente en la trompa contralateral. Este caso evidencia la complejidad diagnóstica del abdomen agudo ginecológico y subraya la importancia de una valoración integral, interpretación cuidadosa de los hallazgos clínicos y paraclínicos, así como una intervención quirúrgica oportuna para prevenir complicaciones sépticas y preservar la fertilidad.

Palabras clave: embarazo ectópico; absceso tubo-ovárico; abdomen agudo ginecológico; enfermedad pélvica inflamatoria; reporte de caso

Correspondencia: jguerra@docentes.uat.edu.mx

Fecha de recepción: 08/julio/2025 | **Fecha de aceptación:** 02/octubre/2025 | **Fecha de publicación:** 26/marzo/2026

*Universidad Autónoma de Tamaulipas, México



From suspected ruptured ectopic pregnancy to the finding of grade III pelvic inflammatory disease: differential diagnosis in gynecological acute abdomen

Autores: Dr. Eugenio Guerra Cárdenas¹, Fernández Echeverría Itzel¹, Panameño Cruz Vicente²

Facultad de Medicina de Tampico "Dr. Alberto Romo Caballero", Universidad Autónoma de Tamaulipas

INTRODUCTION

Ectopic pregnancy is defined as the implantation of the blastocyst outside the endometrial cavity, most commonly in the fallopian tube, and constitutes a prevalent cause of gynecological acute abdomen during the first trimester of pregnancy. A tubo-ovarian abscess, on the other hand, corresponds to an adnexal purulent collection, generally secondary to stage III pelvic inflammatory disease, of polymicrobial etiology. Both conditions may present with severe pelvic pain, signs of peritoneal irritation, and systemic involvement. (1-3)

OBJETIVE

To describe a clinical case of coexistence between a left tubo-ovarian abscess and an early contralateral ectopic pregnancy, highlighting the diagnostic and surgical challenges in the management of gynecological acute abdomen.

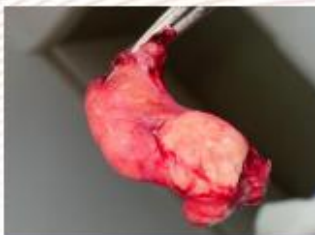
METHODOLOGY

An observational, descriptive, and retrospective study was conducted as a case report, based on the review of the clinical record, imaging study results, and surgical findings of the patient treated in the Gynecology and Obstetrics Service of the General Hospital of Tampico "Dr. Carlos Canseco", during October 2025. During the surgical intervention, the anatomical findings were documented through photographic records and operative description, confirming a left tubo-ovarian abscess secondary to grade III pelvic inflammatory disease and an incipient ectopic pregnancy in the contralateral fallopian tube.

CASE PRESENTATION

Female, 19 years old, single, religion denied. Vital signs: BP 120/70 mmHg, RR 16 breaths/min, HR 86 bpm, SpO₂ 98%.
Family history: Mother deceased at 32 years of age, cause unknown. Father alive, 35 years old, apparently healthy; chronic-degenerative diseases denied.
Non-pathological personal history: Alcohol use (+), initiated at 15 years of age. Tobacco use (+), initiated at 13 years of age, 5 cigarettes per day. Substance use (+), initiated at 10 years of age, 10 marijuana cigarettes per day; cocaine use for the past month, twice per week. Balanced diet three times per day. Tattoos (+), 10 in multiple areas of the body.
Pathological personal history: No relevant data.
Gynecological and obstetric history: Menarche at 10 years of age. Regular menstrual cycles 28 × 4. First sexual intercourse at 14 years of age. Number of sexual partners: 6. Family planning methods: denied. Pap smear (-). DOCMA (-). Last menstrual period (LMP): 24.09.25, G1.
Reason for consultation: The patient presents to the emergency department due to hypogastric and left iliac fossa pain of nine days of evolution, with sudden onset, progressive course, radiating to the lumbar and sacral regions, associated with scant transvaginal bleeding and general malaise. She reports a positive rapid pregnancy test prior to admission. She denies fever, vomiting, or heavy bleeding.
Physical examination: Patient conscious, oriented, and hemodynamically stable. Abdomen soft and depressible, with intense pain on deep palpation in the left iliac fossa, positive Blumberg sign, localized muscular guarding, and pain upon decompression. On gynecological examination, genitalia appropriate for age and sex, posterior closed, and formed cervix, with scant bloody staining on the glove. Posterior fornix bulging and pain with cervical motion.
Transvaginal pelvic ultrasound: Uterus in anteflexion measuring 7 × 3 mm, endometrial line of 3.5 mm, and abundant free fluid in the pelvic cavity and pouch of Douglas, predominantly in the left adnexa, with tubal thickening. A diagnosis of probable ruptured ectopic pregnancy in the left fallopian tube was established, and urgent exploratory laparotomy was indicated.

RESULTS



DISCUSSION

The patient was admitted with an acute abdomen, free fluid in the left adnexa, signs of peritoneal irritation, and a positive immunological pregnancy test (IPT), findings that initially suggested a ruptured ectopic pregnancy in the left fallopian tube. However, during laparotomy, a left tubo-ovarian abscess secondary to grade III pelvic inflammatory disease was identified, coexisting with an incipient pregnancy in the contralateral fallopian tube, which explained the positive IPT. This case highlights the diagnostic complexity of gynecological acute abdomen, in which the simultaneous presence of inflammatory processes and early implantation may mask the true etiology. The coexistence of advanced PID and an incipient pregnancy represents a significant clinical challenge that requires a comprehensive evaluation, careful interpretation of clinical and paraclinical findings, and timely surgical decision-making in order to avoid adverse outcomes.

CONCLUSIONS

The simultaneous presence of a tubo-ovarian abscess and an incipient ectopic pregnancy represents a significant diagnostic challenge. This case underscores the importance of a comprehensive evaluation, the timely use of imaging studies, and early surgical exploration, especially in young patients with risk factors and an ambiguous clinical presentation. Early recognition of coexisting pathologies may prevent septic complications and help preserve fertility.

REFERENCES

- Mandal RC, Hoque JJ, Pan A, Mondal M, Maity S, Arjati, Pramanik A, Banerjee M. Evaluation of clinical presentation and maternal outcome of ectopic pregnancy in a tertiary care hospital: An observational cross-sectional study. National Journal of Physiology, Pharmacy and Pharmacology. 2024 Sep;14(9):1895-1909.
- Godrea PP, Darda MG, Modi DA, Ramji BD. A retrospective study on ectopic pregnancy: incidence, clinical presentation, risk factors, treatment and morbidity and mortality associated with ectopic pregnancy- one year study. Int J of Reproduction, Contraception, Obstetrics and Gynecology. 2023-2024
- Sanjana Paladugu, Sandhyani Panda. Clinical study of ectopic pregnancy in a tertiary care centre in Andhra Pradesh. Int J of Clinical Obstetrics and Gynaecology. 2023;7(2):28-33