

Case report: atypical appendicitis secondary to analgesic use

Reporte de caso: apendicitis atípica secundaria al uso de analgésicos

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Abstract

Acute appendicitis is the leading cause of surgical acute abdomen; however, its clinical presentation may vary and, in atypical cases, hinder timely diagnosis. The indiscriminate use of analgesics and anti-inflammatory drugs can mask classic symptoms, delay identification of the infectious source, and increase the risk of severe complications. The objective of this report was to describe a case of atypical appendicitis with a fatal outcome, highlighting the impact of clinical masking on the patient's course. The case involves a 31-year-old woman with a history of systemic arterial hypertension who initially sought medical care for nonspecific symptoms such as headache, dizziness, nausea, and a prior febrile episode, and was treated symptomatically. She subsequently presented to the emergency department in septic shock, without typical abdominal pain or clear signs of peritoneal irritation. Laboratory studies revealed severe metabolic acidosis, hyperlactatemia, and acute kidney injury. Abdominal computed tomography demonstrated a periapudic collection when multiorgan damage was already irreversible. Despite advanced resuscitative management, the patient progressed to cardiopulmonary arrest and died. This case demonstrates that appendicitis may present in an atypical and fulminant manner when initial symptoms are masked, underscoring the importance of maintaining a high index of clinical suspicion and performing early, comprehensive evaluation in patients with signs of sepsis of unclear origin.

Keywords: atypical appendicitis; acute abdomen; septic shock; clinical masking; case report

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Resumen

La apendicitis aguda es la principal causa de abdomen agudo quirúrgico; sin embargo, su presentación clínica puede variar y, en casos atípicos, dificultar el diagnóstico oportuno. El uso indiscriminado de analgésicos y antiinflamatorios puede enmascarar los síntomas clásicos, retrasar la identificación de la fuente infecciosa y aumentar el riesgo de complicaciones graves. El objetivo de este reporte fue describir un caso de apendicitis atípica con desenlace fatal, destacando el impacto del enmascaramiento clínico en la evolución del paciente. Se presenta el caso de una mujer de 31 años con antecedente de hipertensión arterial sistémica, quien acudió inicialmente por síntomas inespecíficos como cefalea, mareo, náuseas y fiebre previa, siendo tratada de forma sintomática. Posteriormente ingresó a urgencias en estado de choque séptico, sin dolor abdominal típico ni signos claros de irritación peritoneal. Los estudios de laboratorio evidenciaron acidosis metabólica grave, hiperlactatemia y lesión renal aguda. La tomografía abdominal reveló una colección periapudic cuando el daño multiorgánico ya era irreversible. A pesar del manejo con reanimación avanzada, la paciente evolucionó a paro cardiorrespiratorio y falleció. Este caso demuestra que la apendicitis puede presentarse de forma atípica y fulminante cuando los síntomas son enmascarados, lo que resalta la importancia de mantener un alto índice de sospecha clínica y de realizar una evaluación integral temprana en pacientes con datos de sepsis de origen no claro.

Palabras clave: apendicitis atípica; abdomen agudo; choque séptico; enmascaramiento clínico; reporte de caso



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INTRODUCTION

Acute appendicitis is the leading cause of surgical acute abdomen, characterized by inflammation of the vermiform appendix. Its manifestations include abdominal pain that migrates to the right lower quadrant (RLQ), nausea, vomiting, fever, and signs of peritoneal irritation. The indiscriminate use of analgesics and anti-inflammatory drugs may alter the symptoms, hinder timely diagnosis, and increase the risk of serious or even fatal complications.

CLINICAL CASE

A 31-year-old female with a history of hypertension presents to a Family Medicine Unit (FMU) with headache, ear pain, dizziness, and nausea, with a history of fever four days prior; she was treated symptomatically and discharged home.

31/07 Current medical condition: weakness, "diarrhea," and a sensation of dyspnea. Reevaluation: no improvement and presence of syncope.

01/08/2024

00:54 h She was admitted to the emergency department. Blood pressure: 82/62 mmHg, heart rate: 117 bpm. She presented asthenia, somnolence, nausea, and dehydration, with no respiratory or abdominal signs.

06:00 h Afebrile, with mucoid vomiting, lumbar pain, mild pain in the right iliac fossa, and anuria.

10:40 h Diagnosis: septic shock and acute kidney injury (AKI), with hyperlactatemia and high anion gap metabolic acidosis.

12:06 h Poor response to vasopressors. Request for abdominal CT scan.

12:35 h Sudden abdominal pain and a sensation of restlessness. Managed with an opioid.

16:05 h SpO₂ 69%, periods of apnea. A CT report was received: collection in the right iliac fossa (appendiceal process).

16:14 h Neurological deterioration and witnessed cardiorespiratory arrest.

16:39 h Death declared after 45 minutes of basic and advanced resuscitation.



Image 3: Abdominal CT scan with soft-tissue window.



Scan the QR code to access the CT scan.



Scan the QR code to access the laboratory results.

DISCUSSION



Image 4: Classic presentation of acute appendicitis; begins with periumbilical pain that migrates to the right iliac fossa, reflecting irritation of the parietal peritoneum and guiding the clinical diagnosis.

Atypical Presentation - Self-medication
Young woman with hypertension, presenting after a mild viral infection.

Rapid deterioration: previous symptoms (diarrhea, syncope), with no improvement within 24 hours.

01/08: Hypotension and tachycardia, without appendiceal signs.

CRITICAL PHASE

Diaper effect | Hypertension (mask) | Labial nasal signs

DOLOR ABDOMINAL SÚBITO

16:05 - 16:39 h: Neurological deterioration, apnea, and cardiorespiratory arrest.

DIAGNOSTIC TESTS



Image 1: Posteroanterior (PA) chest radiograph.

Image 2: Abdominal radiograph.

CONCLUSIONS

The fatal outcome was secondary to refractory septic shock originating from complicated appendicitis (periappendiceal collection). The key element of this case lies in the clinical masking of the septic source.

Absence of Typical Pain: The lack of abdominal pain and signs of peritoneal irritation at admission, possibly due to the mitigating effect of previously administered medications or the neurological depression induced by severe shock, delayed etiological confirmation.

Irreversibility of Damage: When the collection was identified by CT scan, the patient already presented metabolic acidosis and uncontrollable multiorgan damage (pH 6.8), making advanced resuscitation management insufficient.

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