

Uma Causa Rara e Fulminante de Choque Séptico em que o Diagnóstico Atempado é Crucial

A Rare and Fulminant Cause of Septic Multiorgan Failure where Timely Diagnosis is Crucial

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Palavras-chave: Choque Séptico; Insuficiência de Múltiplos Órgãos; Pancreatite Necrosante Aguda.

Keywords: Multiple Organ Failure; Pancreatitis, Acute Necrotizing; Shock, Septic.

A 70-year-old woman presented to the emergency department with a two-week history of worsening epigastric pain radiating to the flanks without positional relief, nausea, and anorexia.

Her past medical history included non-insulin-treated type 2 diabetes mellitus for 30 years, arterial hypertension, dyslipidemia, obesity, and stage IV chronic kidney disease due to diabetic nephropathy.

Upon admission, the patient was conscious, hemodynamically stable, and afebrile. The abdomen was distended and guarding was observed in the upper abdomen, along with rebound tenderness. Bowel sounds were normal.

Laboratory tests showed: Leukocytes 25 400x10⁹/L,

neutrophils 94%, C-reactive protein 66 mg/dL, procalcitonin 21 ng/mL, amylase 1678 U/L, lipase 3380 U/L, C-peptide <0.7 ng/mL, pH 7.30; HCO₃ 15 mEq/L; lactate 2.6 mmol/L.

Abdominal computed tomography (CT) scan was performed (Figs. 1A and B) and showed a heterogeneous pancreas of increased dimensions surrounded by an extensive gas area.

The patient's clinical condition worsened 12 hours after admission, resulting in multi-organ failure, namely oligoanuria requiring renal function replacement, liver function deterioration with a cytocholestatic pattern, cardiovascular failure necessitating vasopressor support, and respiratory failure requiring invasive mechanical ventilation. The patient was then transferred to the intensive care unit (ICU).

During the patient's hospitalization in the intensive care unit, a subsequent CT examination was acquired one week later (Fig. 1C) revealing a peripancreatic collection suggestive of an infected pseudocyst or acute necrotic collection. Non-occlusive thrombi were also found in the abdominal aorta and superior mesenteric vein.

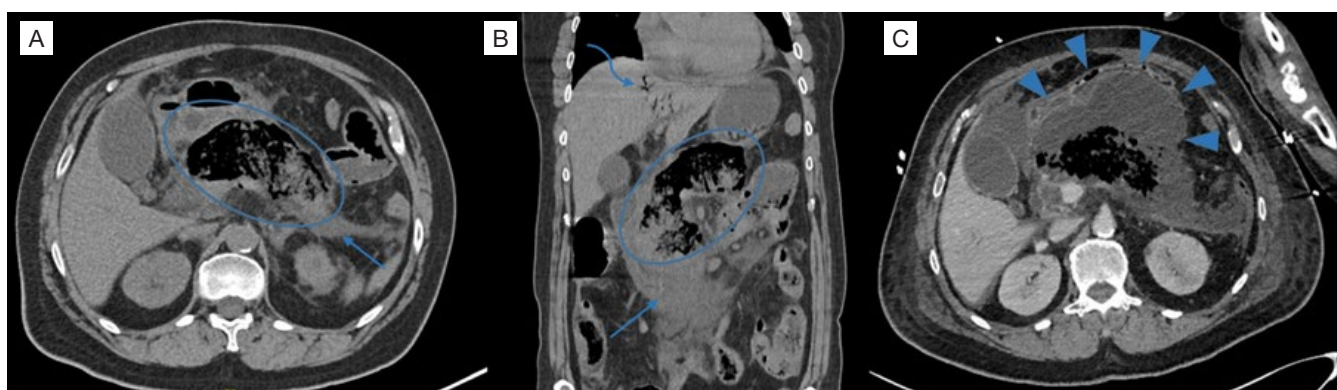


Figure 1: Axial (A) and coronal (B) non-enhanced computed tomography (CT) images acquired at the time of admission. Axial contrast-enhanced venous phase CT image (C) acquired one week after.

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A CT-guided drainage of the collection was carried out, and the respective cultures were positive for *Enterococcus faecalis*.

The diagnosis of severe emphysematous pancreatitis complicated with arterial and venous thrombosis, endocrine pancreatic insufficiency, and septic shock was established.

Therapy consisting of adequate antibiotherapy, anticoagulation, hydrocortisone, parenteral nutrition, octreotide, insulin and pancreatin therapy, was started and several sessions of endoscopic necrosectomy were performed, resulting in a favorable progression of the patient's condition and discharge from the ICU after 30 days.

A and B show a heterogeneous and enlarged pancreas surrounded by an extensive gaseous area (circle). These findings were accompanied by peripancreatic fluid (straight arrows) and pneumobilia (curved arrow) were also found.

C shows extensive pancreatic parenchymal necrosis and a large fluid collection with internal gas bubbles and peripheral enhancement located anteriorly to the pancreas (arrowheads). This was an infected acute necrotic collection.

Emphysematous pancreatitis (EP) is a rare and severe complication of acute necrotizing pancreatitis resulting from an infection of the necrotic pancreatic parenchyma by gram-negative gas-producing bacteria. The bowel bacteria can reach the pancreas through various pathways, including hematogenous, lymphatic, through the ampulla of Vater, entero-pancreatic fistula or transmural translocation.¹

Patients are usually immunocompromised, having comorbidities such as uncontrolled diabetes, heart failure, chronic renal failure or atherosclerosis.²

The initial clinical manifestation may be subtle, but without timely treatment, it can rapidly progress to sepsis, as seen in the patient described. Uninterrupted or recurrent pain, a second peak in pancreatic enzyme levels, worsening organ dysfunction, or sepsis are indicative of complications and should prompt imaging evaluation.¹

CT scan is the preferred method for detecting pancreatic necrosis with intra- and/or peripancreatic gas, and associated collections.¹

Successful treatment necessitates prompt septic shock management. Treatment options include conservative management with broad-spectrum antibiotics, supportive care, and percutaneous or endoscopic drainage of peripancreatic collections and necrotic tissues. Surgical intervention is typically postponed and is only considered for deteriorating patients non-responsive to conservative management.³

Despite appropriate management, the mortality rate for EP remains high (approximately 50%), mainly due to septic multi-organ failure. In patients with acute pancreatitis, a high level of suspicion for this complication is warranted for a timely diagnosis and an appropriate therapeutic intervention.² ■

Declaração de Contribuição

ACM – Pesquisa bibliográfica, avaliação do paciente e redação do artigo.
TFS – Aquisição e interpretação das imagens e revisão crítica do manuscrito.

AM – Revisão crítica do manuscrito.

Todos os autores aprovaram a versão final a ser submetida.

Contributorship Statement

ACM - Literature search, patient assessment and article writing.

TFS - Acquisition and interpretation of images and critical revision of the manuscript.

AM - Critical revision of the manuscript.

All authors approved the final draft.

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