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Emphysematous pancreatitis: a rare entity with characteristic radiological findings

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Keywords: Emphysematous pancreatitis. Emphysematous infection. Pancreatitis.

Case report:

A 53-year-old male with a history of acute pancreatitis of biliary origin and subsequent laparoscopic cholecystectomy. Current hospitalization with a diagnosis of acute pancreatitis. Seventy-two hours after the onset of symptoms, he had fever, uncontrolled pain, and elevated inflammatory markers. Abdominal computed tomography (CT) revealed an aerial collection at the pancreatic gland suggestive of emphysematous pancreatitis. Proteus Vulgaris was isolated in pancreatic puncture and blood cultures. The patient developed septic shock, which requires admission to intensive care unit. Septic shock was controlled initially by percutaneous drainage. However, surgical debridement was also necessary in the following days.

Discussion:

Emphysematous pancreatitis, which consists of the necrotic infection of the pancreatic gland, is a rare entity with significant morbidity and mortality. It presents some characteristic radiological findings, visualizing gas at the level of the pancreatic parenchyma associated with the presence of gas-forming bacteria. For differential diagnosis, the presence of entero-pancreatic fistulas (1), as well as the presence of gas secondary to endoscopic instrumentation, sphincterotomy, or previous trauma, must be excluded. The extraction of culture allows confirming the infection of the necrotic tissue. Gram-negative bacilli are the most frequently involved bacteria (2).

This entity usually requires broad-spectrum antibiotic treatment, intensive care, and debridement of infected necrotic tissue. Although percutaneous debridement may

choose initially, surgical resection is still necessary in refractory cases (3).

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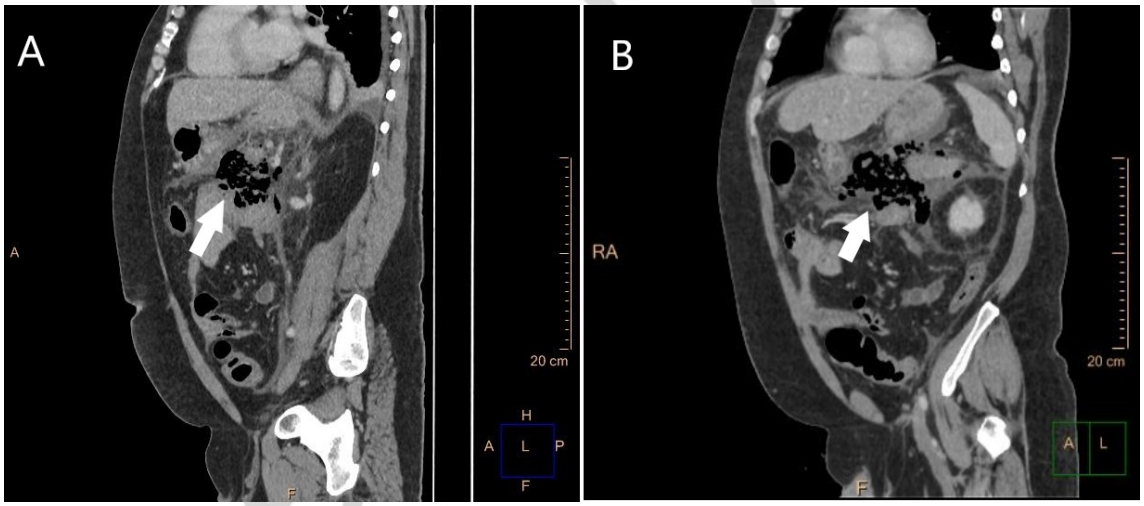

Fig 1.- Abdominal CT with intravenous contrast in portal phase shown in sagittal (A) and oblique (B) views, focused in the pancreas, parcial replacement of the distal body and the tail of the pancreas by an aerial collection (white arrow) that extends adjacent to the first jejunal loop, which appeared thickened and with signs of inflammation, but without discontinuity in its wall.

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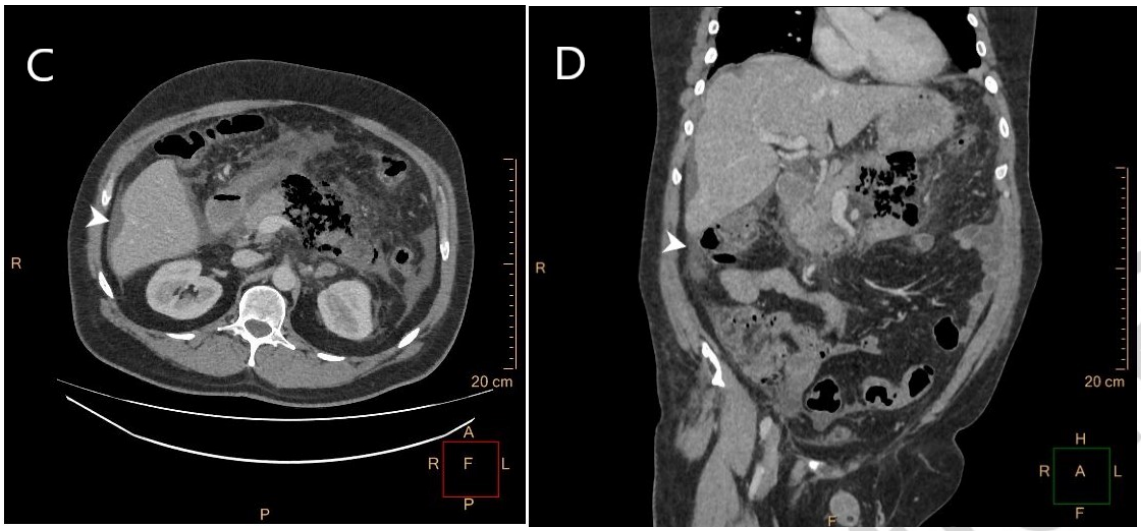

Fig 2.- Abdominal CT with intravenous contrast in portal phase shown in axial (C) and coronal (D) views, a rarefaction of peripancreatic fat, and presence of free perihepatic fluid (white arrow) in the root of the mesentery and in both paracolic gutters, all in relation to inflammatory changes. These findings suggested the initial diagnosis of emphysematous pancreatitis.