

Title:

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A rare case of pancreatic pseudocyst-portal vein fistula in a patient with chronic pancreatitis

Sónia Barros¹, Luís Miguel Relvas¹, Isabel Malta Carvalho¹, Ana Margarida Vaz¹, Bruno Peixe¹

¹Gastroenterology Service, Unidade de Saúde Local do Algarve - Unidade de Faro, Portugal;

Correspondence:

Sónia Barros

Rua Leão Penedo 8000-386 Faro, Portugal

ORCID iD: 0009-0003-1688-3354

E-mail: soniaisb@hotmail.com;

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List of abbreviations

Computerized Tomography (CT)

Magnetic Resonance (MR)

Endoscopic ultrasound (EUS)

Dear Editor,

A 60-year-old alcoholic female with previous history recurrent acute alcoholic pancreatitis progressing to chronic pancreatitis and splenectomy due to splenic rupture, was admitted with epigastric and right hypochondrium pain, vomiting and a asthenia. Laboratory results showed elevated pancreatic enzymes with serum amylase at 222 U/L (normal range 16–52 U/L) and lipase at 263 U/L (normal range 9–59 U/L). Abdominal Computerized Tomography (CT) presented calcified areas within a

background of chronic pancreatitis and mild dilatation of pancreatic duct, complicated by a pseudocyst (measuring 69 mm x 56 mm) in the head of the pancreas. Fluid density was seen within the main portal without contrast enhancement and communication between the pseudocyst and the portal vein appeared to be present. The right and left portal vein was completely thrombosed and there was cavernous transformation around the portal vein.

By the suspicion of pancreatic pseudocyst-portal vein fistula a Magnetic Resonance (MR) Cholangiopancreatography was performed. T2-weighted MR images showed fluid signal intensity within the main portal vein, its main branches, and several intrahepatic branches, similar signal intensity to that of the pseudocyst (Fig.1A and B).

Endoscopic ultrasound (EUS) was performed to confirm the diagnosis. EUS identified the portal vein communicated with the pancreatic pseudocyst (Fig.1C) and the flow of the portal vein was not detected on Doppler mode, as expected (Fig.1D). Pancreatic pseudocyst was punctured via the gastric wall with a 19-gauge needle, obtained brownish material with biochemical analysis revealing a high amylase level, supporting our hypothesis. Considering the patient's primary complaint of abdominal pain relieved with instituted analgesia, a conservative approach was maintained. Regular follow-up showed improved pseudocyst structure on a reassessment CT with no current communication with the portal system and decrease in size of the pseudocyst. The patient remains asymptomatic with ongoing regular monitoring.

Pancreatic pseudocyst-portal vein fistula is an extremely rare complication of pancreatitis.(1) Diagnosis can be challenging as the thin wall between the two structures may not be clearly visible and might be missed on cross-sectional imaging or ultrasound.(2) Currently, there is no gold-standard treatment. In cases with mild and manageable symptoms, like ours, conservative treatment is indicated.(3) Patients with severe symptoms may warrant surgical intervention, however the postoperative mortality rate is high. (4) Recently, endoscopic insertion of a stent into the pancreatic duct has been suggested as an alternative to surgical intervention, allowing improvement of pancreatic flow and blocking the flow to the pseudocyst.(5)

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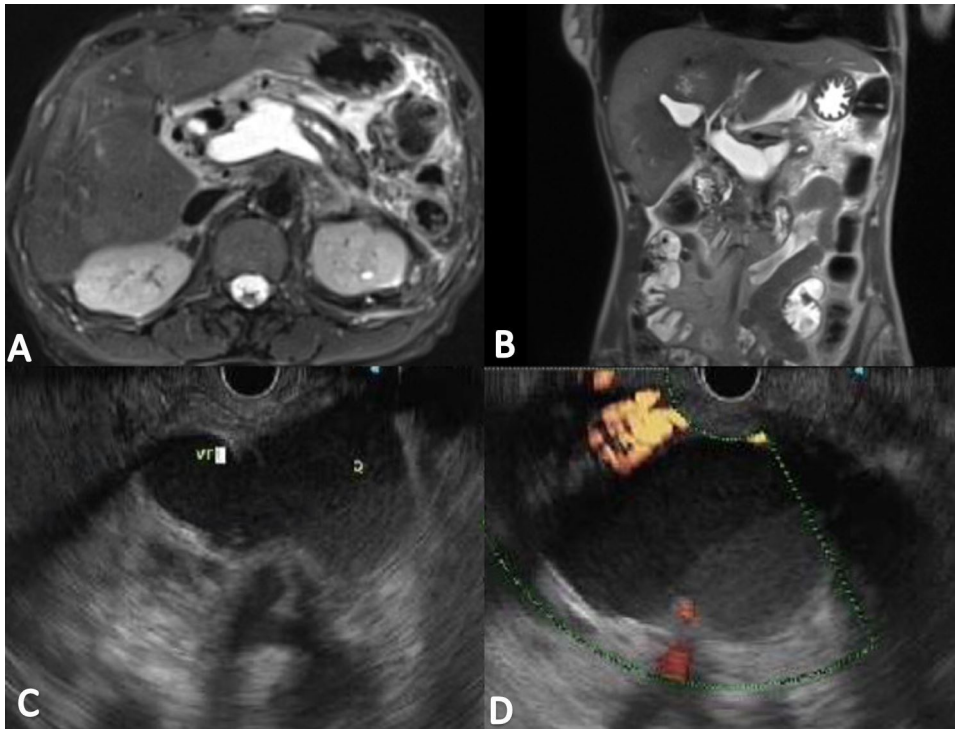


Fig.: A-B: T2-weighted MR images showing a pseudocyst in the head region of the pancreas with fluid signal intensity extending to the main portal veins and several intrahepatic branches. C. EUS image showing the portal vein connected to the pancreatic pseudocyst. D. EUS image showing no detectable flow in the portal vein on Doppler mode.

Accepted