

Neoplastic pancreatitis due to pancreatic groove adenocarcinoma

Pancreatitis neoplásica por adenocarcinoma del surco

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ABSTRACT

We report the case of a 66-year-old male with obstructive jaundice secondary to pancreatic groove adenocarcinoma, initially mistaken for pancreatitis. Imaging revealed diffuse infiltration with biliary dilation, and histopathology confirmed the diagnosis. Pancreatic groove tumors pose a diagnostic challenge due to their atypical presentation and resemblance to other periampullary neoplasms.

Keywords: *Neoplastic pancreatitis; Pancreatic groove adenocarcinoma; Periampullary neoplasms; Biliary obstruction.*

RESUMEN

Se presenta el caso de un paciente masculino de 66 años con ictericia obstructiva secundaria a adenocarcinoma del surco pancreático, inicialmente confundido con pancreatitis litiasica. La evaluación imagenológica mostró infiltración difusa con dilatación biliar, y la anatomía patológica confirmó el diagnóstico. La neoplasia del surco representa un desafío diagnóstico por su presentación atípica y similitud con otros tumores periampulares.

Palabras claves: *Pancreatitis neoplásica; Adenocarcinoma del surco pancreático; Neoplasias periampulares; Obstrucción biliar.*

INTRODUCTION

Neoplastic pancreatitis is an uncommon condition that can easily be mistaken for inflammatory pancreatic processes, delaying both diagnosis and treatment ⁽¹⁾. In this case, a 66 year old patient presented with progressive jaundice, initially attributed to possible acute lithiasic pancreatitis. Subsequent auxiliary studies redefined the diagnosis as adenocarcinoma of the pancreatic groove, leading to a change in therapeutic management.

CLINICAL CASE

66 year old patient admitted with sudden onset colicky abdominal pain, localized in the right hypochondrium, of moderate intensity, radiating to the right iliac fossa. Although

some relief was achieved with common analgesics, the pain persisted. During the previous 15 days, he experienced episodes of acholia, while his urine showed progressive choloria. In the last 24 hours, jaundice became evident, affecting skin and mucous membranes, which finally prompted medical consultation. Despite these symptoms, he denied fever, dysuria, or other additional manifestations. However, he reported that over the past six months he had lost approximately 9 kg, without changes in diet or physical activity.

On physical examination, mucocutaneous jaundice was confirmed, along with abdominal tenderness on palpation in the right hypochondrium and flank, though without signs of peritonitis or hepatomegaly. Digital rectal examination revealed hypocholic stools. Blood tests showed elevated total bilirubin (16.3 mg/dL), predominantly direct, as well as increased GGT (935 U/L) and alkaline phosphatase (450 U/L). Elevated transaminases and pancreatic enzymes were also observed, with amylase at 478 U/L (normal up to 150) and lipase at 711 U/L (normal up to 60), reinforcing the initial suspicion of pancreatitis. The clinical picture was initially classified as pancreatitis associated with obstructive jaundice, based on symptoms and laboratory findings.

On the second day of hospitalization, an abdominal ultrasound was performed, which showed dilation of the intrahepatic bile ducts, with a common bile duct measuring 10 mm, along with biliary sludge in the gallbladder. The following day, a cholangio MRI revealed an infiltrative lesion of the pancreatoduodenal groove measuring 50 × 50 mm, accompanied by dilation of the common bile duct (12 mm) and abrupt stenosis of its distal portion (*Fig. 1*). In addition, enlargement and diffuse edema of the pancreatic head were observed (*Fig. 2*), findings compatible with groove neoplasia and interstitial edematous pancreatitis, respectively.

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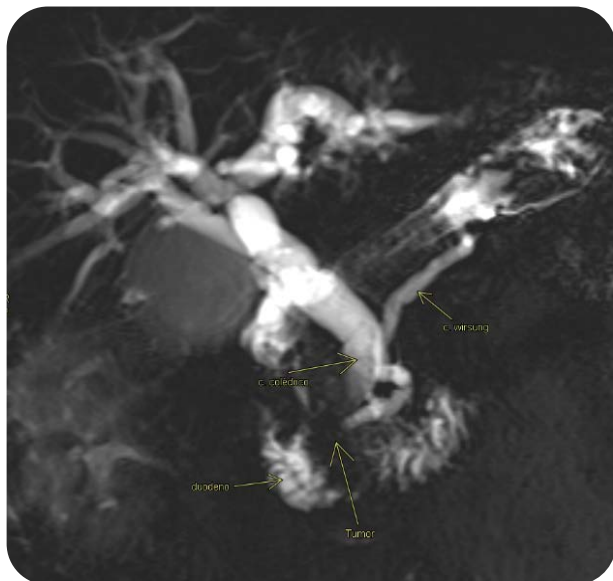


Figure 1. Cholangio-MRI: "Double duct sign." Simultaneous dilation of the common bile duct and the Wirsung duct is observed, with abrupt distal interruption secondary to a tumor in the pancreatic head.

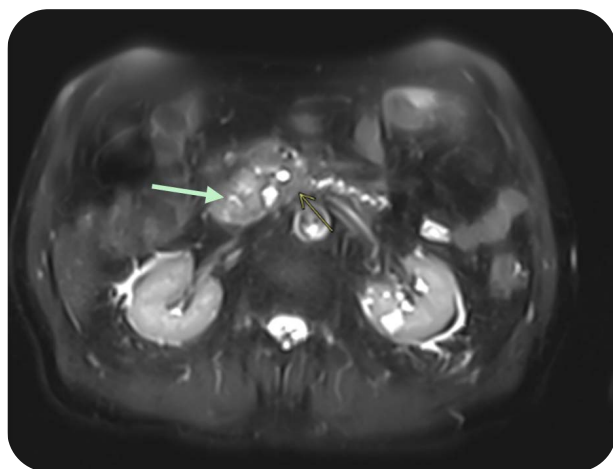


Figure 2. Cholangio-MRI: (arrow) Edema in the pancreatic head (arrow) compatible with neoplastic pancreatitis.

On the sixth day of hospitalization, an attempt was made to perform endoscopic retrograde cholangiopancreatography (ERCP) for diagnosis and partial treatment, but severe stenosis at the duodenal knee prevented progression of the endoscope, and due to the high risk of bronchoaspiration, biopsy sampling was postponed. On day eleven, an upper gastrointestinal endoscopy revealed gastric retention with solid food remnants and chronic gastropathy, which again led to postponement of the biopsy and placement of a nasointestinal tube to ensure nutrition. Finally, on day fifteen of hospitalization, after a repeat endoscopic attempt, the biopsy was successfully obtained, allowing diagnostic confirmation.

On the eighteenth day of hospitalization, due to persistent jaundice, a consultation with minimally invasive surgery was requested, and percutaneous biliary drainage was considered as a therapeutic strategy to relieve obstructive cholestasis. The

following day, an internal external percutaneous biliary drainage was performed (Fig. 3), which allowed progressive reduction of bilirubin levels as well as symptomatic improvement. A decrease in pancreatic enzymes was also observed, with amylase at 192 U/L and lipase at 392 U/L after the procedure.

Thanks to clinical stabilization and functional improvement, the patient underwent exploratory laparotomy, where the intraoperative finding of unresectability (due to invasion of key vascular structures) led to the performance of a gastrojejunostomy, with favorable postoperative evolution. The patient is currently under follow up by Clinical Oncology for appropriate therapeutic planning and management.



Figure 3. Abdominal fluoroscopy: (a) Biliary drainage surpassing the site of stenosis into the duodenum; (red arrow) Abrupt stenosis with contrast stop; (b) Passage of contrast, through catheter, into the duodenum.

DISCUSSION

It represents a major diagnostic challenge because its clinical and imaging manifestations overlap with groove pancreatitis, a variant of chronic pancreatitis localized in the space between the pancreatic head, the duodenum, and the common bile duct ⁽¹⁻³⁾. In our case, the initial presentation mimicked acute lithiasic pancreatitis, a form of onset described by Alhobayb et al., who emphasize that acute inflammation may be the earliest manifestation of an underlying ductal adenocarcinoma ⁽⁴⁾. In the face of such a presentation, authors such as Boadas stress that the key is not only to treat the acute event, but to pursue the underlying etiology to avoid delayed diagnoses ⁽⁵⁾.

As detailed in Table 1, there are critical differential markers that guided our suspicion toward malignancy. Whereas benign groove pancreatitis is typically associated with alcoholism and presents with a course of recurrent pain ^(2,3), our case was characterized by progressive obstructive jaundice and significant weight loss, cardinal signs of periampullary neoplasia ^(1,4).

Table 1. Differential Diagnosis and Clinical correlation.

Character- istic	Groove Pancreati- tis (Benign)	Adenocarci- noma (Ma- lignant)	Finding in this case
History	Chronic alcohol- ism ³	No associa- tion neces- sary ⁴	Non-elitist
Dominant symptom	Recurring pain and vomiting ²	Jaundice and weight loss ^{1,4}	Obstructive jaundice
MRI findings	Paraduodenal cysts ^{1,2}	Solid and infiltrative mass ^{1,4}	Solid/infil- trative mass
Vascular Af- fectionation	Blood vessel dis- placement ³	Invasion (Porta/MSA) ^{4,6}	Vena Porta Invasion
Bile Duct	Inflammatory ste- nosis ²	Abrupt ob- struction ⁶	Complete obstruction

This differentiation was key for the initial management. Given the impossibility of performing ERCP due to duodenal stenosis, a finding consistent with the series by Barboza Besada et al. ⁽⁶⁾, percutaneous biliary drainage was chosen. This intervention allowed clinical optimization of the patient, a fundamental

step considering that other aggressive neoplasms, such as solid pseudopapillary tumors or ampullary neuroendocrine tumors, may also present with obstructive jaundice and require similar approaches. In this regard, it is relevant to note that authors such as Khan et al. and Modi et al. suggest that, in the presence of such atypical periampullary tumors, endoscopic ultrasound guided biopsy (EUS) could be considered a fundamental preliminary step for differential diagnosis ^(7,8). Nevertheless, due to the limited availability of endoscopic ultrasound in our setting, combined with the suspicion of advanced malignancy and the need to palliate both biliary and duodenal obstruction in a single procedure, direct progression to surgical exploration was justified.

Finally, the definitive therapy was aligned with the evidence of unresectability due to major vascular invasion observed intraoperatively. Although the definitive diagnosis is usually histopathological, the biological aggressiveness of adenocarcinoma in this location (which is often diagnosed at advanced stages because of its silent anatomical position) justified the palliative approach undertaken to ensure the patient's quality of life and maintenance of alimentary transit ^(1,6,9).

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