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CLINICAL CASE

Groove Pancreatitis with Biliary and Duodenal Stricture: An Unusual Cause of Obstructive Jaundice

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Abstract
Introduction: Groove pancreatitis is an uncommon cause of chronic pancreatitis that affects the groove anatomical area between the head of the pancreas, duodenum, and common bile duct.
Clinical case: A 67-year-old man with frequent biliary colic and an alcohol consumption of 30–40 g/day was admitted to the hospital complaining of jaundice and pruritus. Laboratory analysis revealed cholestasis and the ultrasound scan showed intra-hepatic biliary ducts dilatation, middle third cystic dilatation of common bile duct, enlarged Wirsung and pancreatic atrophy. The magnetic resonance cholangiopancreatography showed imaging findings compatible with groove pancreatitis. An esophagogastroduodenoscopy later excluded duodenal neoplasia. He was submitted to a Roux-en-Y cholangiojejunostomy because of common bile duct stricture. Five months later a gastrojejunostomy was performed due to a duodenal stricture. The patient remains asymptomatic during follow-up.
Discussion: Groove pancreatitis is a benign cause of obstructive jaundice, whose main differential diagnosis is duodenal or pancreatic neoplasia. When this condition causes duodenal or biliary stricture, surgical treatment can be necessary.

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PALAVRAS-CHAVE
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Pancreatite

Pancreatite da Goteira Complicada por Estenose Biliar e Duodenal: Uma Causa Rara de Icterícia Obstrutiva

Resumo
Introdução: A pancreatite da goteira duodeno-pancreática é uma forma rara de pancreatite crónica, que afeta a área anatómica entre a cabeça do pâncreas, duodeno e ducto biliar comum.
Caso Clínico: Doente do sexo masculino, 67 anos, com antecedentes de cólicas biliares de repetição e consumo etílico de 30-40 g/dia, internado por icterícia e prurido. Analiticamente, apresentava colestase e, ecograficamente, dilatação moderada das vias biliares intra-hepáticas (VBIH), dilatação quística do 1/3 médio do colédoco, ectasia do Wirsung e atrofia pancreática. A colangiopancreatografia por ressonância demonstrou aspetos imagiológicos compatíveis com pancreatite paraduodenal. A endoscopia alta excluiu neoplasia duodenal. Foi submetido a colangiojejunostomia em Y Roux por estenose do colédoco e após 5 meses a gastrojejunostomia por estenose duodenal. O doente mantem seguimento, permanecendo assintomático.
Discussão: A pancreatite paraduodenal é uma forma benigna de icterícia obstrutiva, cujo principal diagnóstico diferencial é a neoplasia duodenal/pancreática. Quando esta condição causa estenose duodenal ou biliar, a terapêutica cirúrgica poderá ser necessária.

1. Introduction

Groove pancreatitis is a rare and under-recognized subtype of chronic pancreatitis that affects the anatomical region composed by the duodenum, pancreatic cephalic portion and common biliary duct (CBD).[1–3] The prevalence of this condition in pancreaticoduodenectomy specimens of patients with chronic pancreatitis has been reported to be as high as 24.5%.[4] Pathogenesis is still unclear, but it involves a fibrotic inflammation,[5] that could cause biliary stricture, with obstructive jaundice or duodenal stricture along with vomiting. The main differential diagnosis is the pancreatic head, CBD or duodenal neoplasia, which imply different management and prognosis. Commonly, this condition can be resolved with conservative treatment. In rare cases of clinical relevant biliary or duodenal stenosis, surgical treatment is necessary.[2,6]

2. Clinical case

The authors present a case of a 67-year-old man, with a history of repeated biliary colic. He had an alcohol consumption of 30–40 g/day and refused cholecystectomy. He presented to the emergency department with a two days evolution of painless jaundice, dark colouration of the urine and generalized pruritus. He denied having had any blood transfusion, new drugs prescription or over-the-counter drugs, fava bean consumption, previous surgeries, recent travels or unprotected sexual intercourse. He had no previous jaundice episodes or recent infections. The physical examination revealed jaundice of mucosa and skin. The remaining physical exam was unremarkable.

Laboratory analysis showed predominant cholestatic hepatitis with aspartate aminotransferase 908 (<35 U/L), alanine aminotransferase 1236 (<45 U/L), alkaline phosphatase 1581 (40–150 UL), gamaglutamyltranspeptidase 2753 (<55 U/L), total bilirubin 17.2 (0.3–1.2 mg/dL) and direct bilirubin 9.9 (0.1–0.5 mg/dL) with normal amylase and lipase. Subsequent complementary studies showed no abnormalities, including tumour markers carcinoembryonic antigen and carbohydrate antigen 19-9, viral infections (coxsackie, hepatitis B, cytomegalovirus, varicella-zoster virus, herpes simplex virus, epstein–barr virus, human immunodeficiency virus), bacterial infections (mycoplasma, legionella, leptospira, *coxiella burnetii*, *rickettsia conorii*, *treponema pallidum*, *borrelia burgdorferi*), autoimmunity and serum IgG4.

The abdominal ultrasound showed a dilatation of the intra-hepatic biliary ducts (IHBD), middle third of CBD (16 mm) and Wirsung (7 mm), with normal distal CBD diameter. Biliary lithiasis and pancreatic atrophy were also detected, but it was not possible to identify the obstructive cause. The abdominal computerized tomography and the magnetic-resonance cholangiopancreatography showed IHBD dilatation, dilatation of proximal third of CBD measuring 17 mm with progressive distal narrowing, pancreas divisum, ectasia of the duct of Wirsung with maximum diameter of 8 mm, atrophy of pancreatic body and tail and cystic structures in pancreaticoduodenal groove. These imagiological findings appeared to have been caused by a thick duodenal parietal wall at minor papilla level with consequent Wirsung obstruction and significant extrinsic compression of CBD which associated to the small cystic images in paraduodenal groove are strongly suggestive of groove pancreatitis (Fig. 1).

Subsequently, an esophagogastroduodenoscopy was performed, revealing an asymptomatic duodenal stricture with congestive and infiltrative mucosa, making a transpapillary approach by endoscopic retrograde cholangiopancreatography impossible. The biopsies showed moderate duodenitis without dysplasia or neoplasia.