

Unexpected drainage of pancreatic pseudocyst through the common bile duct

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We herein report the unexpected spontaneous communication of a pancreatic pseudocyst (PP) with the common bile duct (CBD) detected during endoscopic retrograde cholangiopancreatography (ERCP) in a 56-year-old female patient. Complete cyst drainage was achieved after endoscopic sphincterotomy and CBD stent placement.

A 56-year-old woman hospitalized elsewhere with a 4-week history of acute gallstone pancreatitis was transferred to our hospital due to fever, worsening abdominal pain, progressive jaundice, nausea, and vomiting. Physical examination revealed fever, tachycardia, and signs of peritoneal irritation.

Abnormal laboratory findings included hemoglobin of 7.9 g/dL, leukocyte count of 11.5 K/ μ L (78% neutrophils), C-reactive protein of 115 mg/L, alkaline phosphatase of 435 U/L, γ -glutamyl transferase of 457.0 U/L, total bilirubin of 4.66 mg/dL (90% direct), and amylase of 252 U/L.

Abdominal computed tomography (CT) showed a pseudocyst sized 11 cm x 7 cm x 8.6 cm along the proximal pancreatic body and a dilated to 12 mm CBD containing a 6 mm stone.

Following initial conservative management, an ERCP was performed 7 days after admission and CBD opacification revealed a leak between the CBD and a neighboring cavity. Sphincterotomy was performed, followed by stone extraction and placement of a plastic CBD stent sized 10 Fr x 7 cm. Whitish semitransparent liquid came out from the ampulla of Vater, indicating transpapillary PP drainage.

Following ERCP, patient's symptoms subsided and laboratory tests improved significantly. Abdominal CT scan 5 weeks postoperatively revealed a markedly shrunk pseudocyst.

One month later the patient was asymptomatic and had no laboratory abnormalities. Stent removal with ERCP was performed and subsequent opacification of the CBD disclosed no contrast leak.

We herein present for the first time the spontaneous drainage of a PP in the CBD that was evident during ERCP, without previous imaging documentation of PP leak to the CBD. Our hypothesis is that the close contact of the CBD with the large PP led to the erosion of the former, due to an inflammatory process triggered by the rich in proteolytic enzymes pseudocyst fluid. This resulted in the acute rupture of the PP into the CBD. An alternative hypothesis is that maneuvering during ERCP might have caused the acute rupture of the PP into the CBD.

Literature reveals only 21 cases of PP with fistula to the CBD. Sixteen have been reviewed by Ali *et al* [1], while there are also 2 published in Japanese and 1 in French with inaccessible content [2-4]. Regarding the 18 cases published in English [1,5], all but one patient suffered from either acute or chronic alcoholic pancreatitis. Management is reported in 17 patients (15 male) [1,5]. In detail, 9 patients were treated surgically, 3 with percutaneous external drainage, 1 with expectant observation, while 4 patients underwent endoscopic biliary stenting similar to our case.

In conclusion, we report the first case of PP rupture in the CBD in a woman with non-alcoholic acute pancreatitis. Diagnosis and treatment were accomplished during ERCP, since previous imaging was of no diagnostic value and no further intervention was warranted.

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Conflict of Interest: None

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