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IMPACTED PANCREATIC STONE RESULTING IN BILIARY OBSTRUCTION, CHOLEDOCHAL DUODENAL FISTULA DEVELOPMENT, AND CHOLANGITIS



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INTRODUCTION

- Pancreatic stones are present in about one-half of patients with chronic pancreatitis (CP).
- Pancreatic stones are associated with alcohol, smoking, metabolic and hereditary factors.
- The most common complication of pancreatic stones is acute pancreatitis.
- Pancreatic stones can lead to pancreatic fistulas and/or biliary obstruction when associated with bile duct strictures.
- Stones are typically managed by surgery, endoscopy, and extracorporeal shock wave lithotripsy.
- We present a case of an obstructive pancreatic stone complicated by ascending cholangitis and a choledochal duodenal fistula (CDF).

CASE REPORT

- A 69-year-old male with a history of a remote cholecystectomy, alcohol abuse, and CP presented with abdominal pain and vomiting.
- On arrival he was hypotensive and febrile. Blood work was significant for leukocytosis, elevated liver enzymes, and Klebsiella bacteremia.
- Computed tomography demonstrating intra and extrahepatic bile duct (BD) dilatation, diffuse pancreatic calcifications, and a dilated pancreatic duct.
- Given concern for ascending cholangitis the patient was started on antibiotics and underwent urgent ERCP.
- Endoscopy revealed a bulging major papilla consistent with an impacted stone and obvious biliary drainage from a fistula proximal to the papillary orifice.
- Precut biliary sphincterotomy was performed revealing a 12mm impacted pancreatic stone (Figure 1).
 A pancreatic septotomy was then performed resulting in spontaneous stone passage. Plastic stents were placed across both ducts to ensure drainage.
- Post procedure patient had full resolution of jaundice and abdominal pain.



Figure 1: Impacted pancreatic stone exposed after biliary sphincterotomy

DISCUSSION

- Obstructive jaundice and enteric fistulas are known complications of bile duct stones.
- However, there are limited reports describing obstructive jaundice secondary to pancreatic stones.
- To our knowledge, this is the first report of a chronic pancreatitis complication whereby pancreatic stone impaction led to chronic biliary obstruction but also with ascending cholangitis and fistula development.
- This case highlights a rare, but potentially dangerous complication of a large pancreatic stone that led to biliary obstruction and cholangitis that was successfully managed with ERCP.

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