Multiple pancreaticobiliary fistulas combined with acute necrotizing pancreatitis: a rare complication of pancreatic extracorporeal shock wave lithotripsy

A 54-year-old woman with a history of chronic pancreatitis and cholecystectomy 4 years prior presented with intermittent abdominal pain. Computed tomography (CT) revealed large pancreatic calcifications, main pancreatic duct (MPD) dilation, and pneumatosis in the biliary and pancreatic ducts (Fig. 1). She underwent pancreatic extracorporeal shock wave lithotripsy (ESWL) first, during which small stone fragments were expelled (Fig. 2). However, her abdominal pain worsened, with low grade fever post-procedure. Laboratory tests and CT revealed acute necrotizing pancreatitis, extensive exudation and peripancreatic fluid collection, and impacted stones in the pancreatic head (Fig. 3). Abdominal pain control proved difficult without analgesics. Enhanced CT suspected a connection between the MPD and the common bile duct (CBD) (Fig. 3, arrow). Further endoscopic retrograde cholangiopancreatography found two fistula openings near the major papilla, which proved to be bile and pancreatic duodenal fistulas. Pancreatography confirmed the presence of a pancreaticobiliary fistula, linking the distal CBD to the MPD (Fig. 4, Video 1). After clearing fragments, a 7-Fr × 9-cm single-pigtail plastic stent was placed and significantly improved her symptoms. Remarkably, the pancreaticobiliary fistula had healed 2 months later. Pancreatography showed no stones remaining in the MPD (Fig. 5). However, as CT showed one stone remaining in the pancreatic parenchyma or branch duct, we placed two single-pigtail stents (7-Fr × 9-cm and 7-Fr × 8-cm) for better drainage.

In the context of pancreatic ESWL, a minority of patients may experience acute pancreatitis with unknown etiology [1]. Multiple pancreaticobiliary fistulas as well as poor drainage is a rare etiology leading to post-ESWL pancreatitis, analogous to pancreaticobiliary maljunction [2]. More attention should be paid to pancreatic ESWL fistulas.

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Conflict of Interest

The authors declare that they have no conflict of interest.

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References


Bibliography

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Video 1 Multiple pancreaticobiliary fistulas leading to pancreatitis after extracorporeal shock wave lithotripsy, and healing with endoscopic pancreatic stent drainage.

Fig. 4 Endoscopic retrograde choangiopancreatography showed two bile and pancreatic duodenal fistula openings (arrows) near the major papilla, and confirmed the presence of pancreaticobiliary fistulas.

Fig. 5 Endoscopic retrograde choangiopancreatography showed that the pancreaticobiliary fistula had healed, with no stones remaining in the main pancreatic duct, but with stenosis and common bile duct dilation.