

## Diagnosis and management of pancreaticopleural fistula: Report of two cases

인제대학교상계백병원

\*최도현, 박지영, 전태주, 김영문, 송두환, 서영기, 양경호

**Introduction:** Pancreaticopleural fistula (PPF) is an unusual complication of pancreatitis with an incidence in 0.4% of patients. We describe two cases of PPF in patients with pancreatitis. **Case description:** Case 1. A 56-year-old man presented with 2-day chest pain. The patient had a medical history of recurrent alcoholic pancreatitis. Chest X-ray showed a right pleural effusion (Fig. 1). Diagnostic thoracentesis was performed yielding pleural fluid amylase over 2100 IU/L. Abdominal CT revealed pancreatitis and PPF with abscess (Fig. 2). The patient was initially managed conservatively with parenteral nutrition, gabaxate mesylate administration, intravenous antibiotics, and endoscopic retrograde cholangiopancreatography (ERCP). ERCP confirmed the presence of pancreatic duct (PD) disruption and contrast leakage (Fig. 3). With endoscopic pancreatic sphincterotomy, 5 Fr 12cm pancreatic stent was inserted. After 4 weeks, repeat CT revealed markedly resolved PPF with abscess. Case 2. A 50-year-old man with a history of alcohol abuse presented with dyspnea for 2 weeks. Chest X-ray showed a left-dominant bilateral pleural effusion (Fig. 4). Pigtail chest drainage was inserted at the left pleural cavity and pleural fluid amylase was 4530 IU/L. A MR cholangiopancreatography (MRCP) scan showed PPF at the aspect of right pleural cavity (Fig. 5). The patient was initially managed conservatively. ERCP was attempted, but the PD cannulation was not feasible due to tortuousness of main PD (Fig. 6). After 4 weeks of medical treatment, there was no clinical improvement; therefore a surgical procedure was proposed to the patient. Distal pancreatectomy was performed. Pathological examination revealed signs of chronic pancreatitis and the presence of the fistulous tract. The patient is doing well without recurrence 12 months from operation. **Conclusion:** PPF is a rare finding and requires a high index of suspicion with history of pancreatitis or alcohol abuse. The diagnosis can be suggested by a high level of amylase in the pleural fluid and confirmed by imaging study. The therapeutic approach attempted, whether medical, endoscopic or surgical, should be tailored to the PD anatom

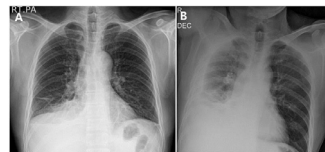


Figure 1  
Chest X-ray showed a right pleural effusion. (A) posteroanterior (PA) view (B) lateral decubitus view

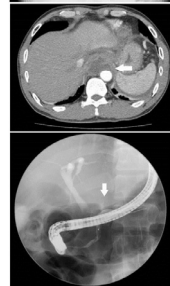


Figure 2  
Abdominal CT scan demonstrated a 5.6cm cystic lesion with enhancing wall in right pancreatic area communication with peripancreatic area.



Figure 4  
Chest X-ray showed a left-dominant bilateral pleural effusion.

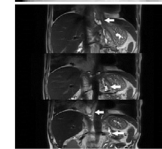


Figure 5  
MRCP demonstrated pancreaticopleural fistula (white arrow).



Figure 6  
ERCP revealed tortuous main pancreatic duct at the proximal portion.

## Acute pancreatitis after endoscopic biopsy of minor papilla in patient with pancreas divisum

대구 파티마 병원

\*장용혁, 이재광

Pancreas divisum (PD) is the most common anatomic variant of the pancreatic duct and has an incidence of approximately 5-10% of the population. Most exocrine secretions in PD drain through the dorsal pancreatic duct and minor papilla. Usually, patient with PD have no clinical symptom. But, if drainage of pancreatic secretions is failed by ductal obstruction and/or minor papilla stenosis, clinical presentation such as abdominal pain or pancreatitis may occur. Case review: A healthy 67-year-old women underwent esophagogastroduodenoscopy for general examination. A small polyp 2 mm in size was seen in the second portion of the duodenum; its location was proximal to the major duodenal papilla (Fig.1a). An endoscopic biopsy was taken (Fig.1b). The biopsy findings showed chronic inflammation duodenal mucosa. The patient developed severe epigastric pain 12 hours after the EGD. Serum amylase and lipase levels were markedly increased (4042U/L and 13063U/L, respectively), while other serum biochemical levels were within normal ranges. Abdominal computed tomography (CT) scan showed diffuse pancreatic swelling with a peripancreatic fluid collection (Fig.2). Magnetic resonance imaging of the pancreas showed that the common bile duct and the dorsal pancreatic duct had different duodenal openings and that the dorsal pancreatic duct drained into the minor duodenal papilla with no communication with the common bile duct (Fig.3). We therefore diagnosed pancreas divisum. On the basis of many autopsy studies, pancreas divisum is found in 8% of the normal population. In cases of pancreas divisum, the small ventral duct drains via the major papilla and the large dorsal duct drains via the minor papilla. Most of the pancreatic ductal system drains via the minor papilla. Therefore papillary edema due to endoscopic biopsy may obstruct the pancreatic duct causing acute pancreatitis. In the case reported here, the opening of the minor papilla distinctly resembled a polyp. If acute pancreatitis develops after endoscopic biopsy of the minor papilla, the possibility of pancreas divisum should be checked.

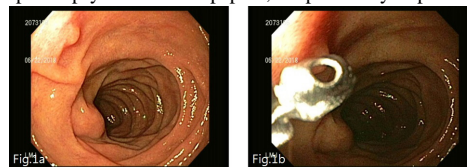


Fig.1a

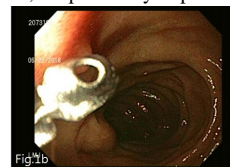


Fig.1b



Fig.2

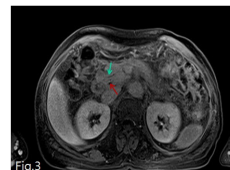


Fig.3