Background: Pleuropancreatic fistulae occur as a rare complication of ductal disruption with leakage of pancreatic fluid via the aortic hiatus into the mediastinum, and eventually into the pleural space during severe acute pancreatitis. Due to low prevalence, management experience remains controversial and sparse outside specialist centers.

Case report: A 70-year old woman was treated as an inpatient for acute pancreatitis in January 2015 in partner institution. Cholecystectomy was successfully performed and a pancreatic pseudocyst was thereafter monitored.
Since April 2016 she was treated for the left-sided pleural effusion and hemoptysis by a pulmonologist. Initial thoracocentesis was performed without alpha amilase analysis. Effusion analysis showed microbiologically sterile lymphocytic effusion. X-ray showed bilateral infiltrates with effusion resolving after treatment with several antimicrobials. In the next few months she was hospitalized for several times due to recurrent pancreatitis and hemoptysis. Extensive medical work-up was done and there was no signs of active bleeding on bronchoscopy. CT scan of chest and abdomen was performed and paraaortic supradiaphragmatic collection of puss (sterile) with chronic inflammatory infiltrate in the right lower lobe was seen. Empirically, patient was started on glucocorticoid therapy with 40 mg metilprednisolone and antituberculotics. Despite the treatment, hemoptyses were present and she was transferred to our hospital. At admission, infiltrate in left lower lobe was visible on x-ray with elevated C- reactive protein. Bronchoscopy was repeated with no signs of active bleeding and malignancy. Antituberculotics were stopped, glucocorticoids were tampered and she was treated with levofloxacine. On the next follow up partial regression of infiltrate with gradual cessation of hemoptysis was seen but several weeks after she was hospitalized for recurrent hemoptysis. Revision of the magnetic resonance cholangiopancreatography and abdominal CT scan finding was done and it showed a collection in the pancreatic tail with tubular channels spreading to an oval collection in the pleural space - consequence of a necrotic pancreatitis with large inflammatory collection spreading retrocrurally, bilaterally subdiaphragmatically and supradiaphragmatically on the left side; primarily residual inflammatory collections and pleuropancreatic fistula. After pleuropancreatic fistula was visualized we concluded that the cause of hemoptysis was due to pancreatic secretion in the pleural cavity.

Conclusion: Careful assessment of patient’s history and imaging diagnostics were essential for the diagnosis. Management of pancreaticopleural fistulas can be improved with appropriate patient identification and includes conservative treatment or endoscopic/surgical intervention.