Pancreaticopleural Fistula, A Unique Manifestation of the Sequelae of Pancreatitis



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INTRODUCTION

- Acute pancreatitis is a common diagnosis with established modalities and guidelines of treatment and patient monitoring.
- Further known and established are the potential for common sequelae such as transition to chronic pancreatitis, calcification, and nutritional deficiencies.
- Lesser known and published in literature are the pleural sequelae of pancreatitis, namely the potential for pancreaticopleural fistulization.
- Here, we present a case of pancreatitis with pleural fistula formation to shed light on the common presentation, evaluation and treatment methods of this less common diagnosis.

CASE PRESENTATION

- The patient is a 47 year old male with a history of alcoholism with prior episodes of pancreatitis, presenting with a complaint of dyspnea.
- The patient was found to have abdominal pain, as well as elevation of lipase concerning for pancreatitis.
- Initial imaging demonstrated bilateral pleural effusions for which the patient underwent right sided thoracentesis with fluid studies demonstrating elevated lipase, amylase, and protein.
- Initially, conservative management was pursued for pancreatitis with NPO status and fluid resuscitation.
- Without noted clinical improvement, MRCP was performed which demonstrated a concern for fistulization from the pancreatic duct to the lesser sac of the stomach and potential pancreatic pleural fistula formation.

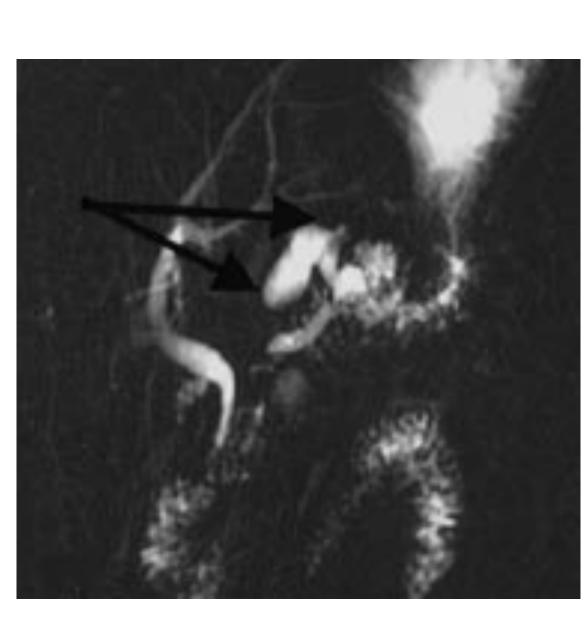
FISTULA INSIGHT & IMAGING



A chest x-ray examination showing a right pleural effusion. The first presenting sign in our case.



A chest computed tomography showing a right pleural effusion.



Communication of the pancreatic duct with the pleural cavity on magnetic resonance cholangiopancreatography (MRCP) imaging.



A pleuropancreatic fistula on endoscopic retrograde cholangiopancreatography imaging.

Due to privacy considerations, imaging from the patient case is not being used. Images being used are cited from the study Vasilieva et. al.

REFERENCES & ACKNOWLEDGEMENTS

- 1. Vasilieva L, Adamidi S, Kittou N, Papiris K, Romanos A, Dourakis SP. Right-sided pancreaticopleural fistula. *Ann Gastroenterol*. 2014;27(4):436-437.
- 2. Bąk M, Murawa D. Pancreatic-pleural fistula presenting as epigastric pain. *Pol Przegl Chir*. 2020;92(4):54-57. doi:10.5604/01.3001.0014.1177

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MANAGEMENT & OUTCOME

- With gastroenterology consultation, the patient underwent ERCP with placement of a pancreatic duct stent.
- With continued clinical decline, CT surgery consultation was requested for recurrence of the pleural effusions.
- The patient underwent right sided decortication with chest tube placement and bronchoscopy further confirming the diagnosis of pancreatic pleural fistulization.

DISCUSSION

- Here, we have discussed the initial signs and symptoms masking the ultimate diagnosis of a pancreatic and pleural fistula formation with a known diagnosis of pancreatitis.
- Literature purports initial management to be conservative with NG or parenteral nutrition. Due to our patient's clinical decline, second line treatment was initiated with endoscopic evaluation.
- As the patient continued to have pleural effusion formation bilaterally, which while only seen in 15% of cases, prompted tertiary treatment modalities with surgical decortication.
- This pattern also suggests that should treatment continue to fail, next steps would justify pancreatic drainage or pancreatic resection (Bak et al).
- Our case provides insight into the step-wise approach to pancreaticopleural fistula management with unique imaging findings, adding to medical literature the management of a lesser known complication of pancreatitis.