

A Rare Presentation of Pancreaticopleural Fistula and Bronchopleural Fistula in a Case of Acute Pancreatitis

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Abstract

Pancreaticopleural and Pancreaticobronchial fistulas are a rare complication of pancreatitis and poses diagnostic and therapeutic challenges. It should be considered if a patient with pancreatitis develops respiratory symptoms.

Keyword: *Pancreatitis; Pancreaticopleural fistula; Pancreaticobronchial fistula*

1. Case Report

33-year male, no comorbidities came with complaints of abdominal pain, black stools, weight loss since one-month, generalised weakness for 10 days, fever for two days. Blood investigations revealed Hb; 5.8 gm, Lipase 1987u/L, amylase -581 u/L. Chest Radiograph showed Bilateral Pleural effusion with mediastinal widening. CT abdomen reports revealed pancreatitis with focal multiloculated fluid collection with near complete encapsulation in the intrapancreatic, peripancreatic region in the body and tail of pancreas and collection in mediastinum, predominantly in the peri-oesophageal and retro-oesophageal regions and apparent communication with the right pleural cavity.

MRCP - showed pancreatic duct leak, ERCP and Pancreatic duct stenting was done. Patient had hemodynamic instability with requirement of ionotropes breathlessness and persistent coughing with copious sputum production. A CECT Thorax revealed fluid collections within the mediastinum in the retro-oesophageal, peri-oesophageal regions with paratracheal extensions and a possible fistulous communication with airways.

Inspite of thoracentesis effusion recurred causing passive lung collapse and respiratory distress hence an ICD was placed on the right-side chest wall, a thoracoscopic lavage was performed to clear the mediastinal collection in the pleura. Post procedure the patient improved symptomatically and ionotropic requirement tapered off (FIG. 1-4).

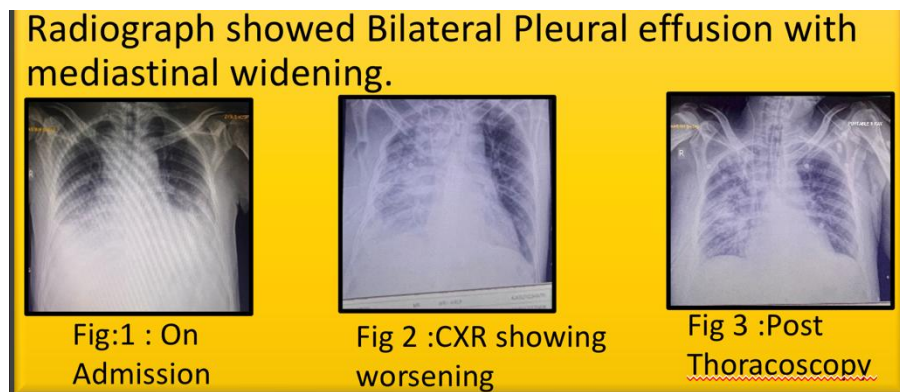


FIG. 1-3.

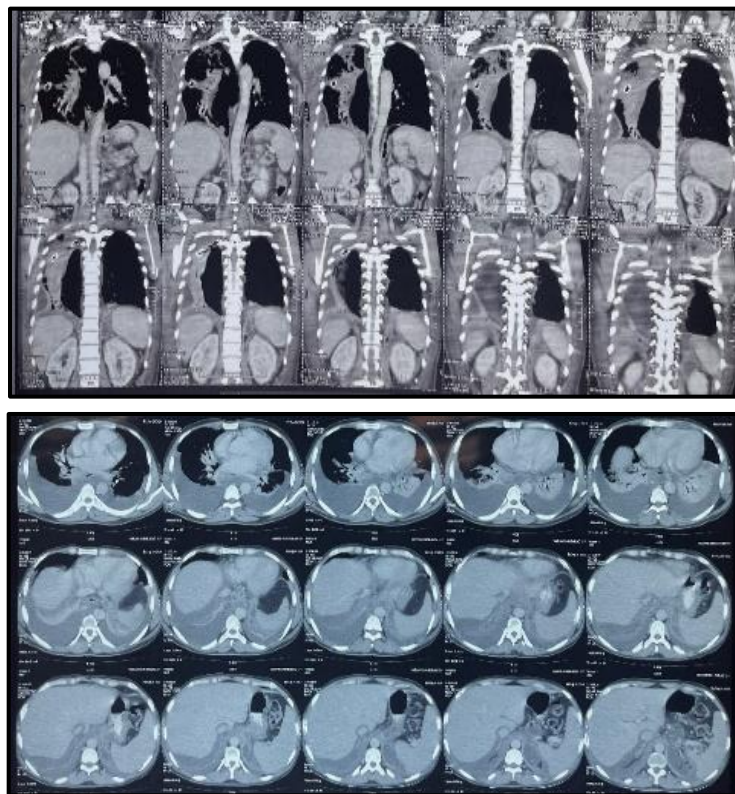


Fig 4. CT Thrax & Abdomen– S/O right sided pancreaticopleural fistula and showing mediastinal collection.

2. Discussion

A pancreaticobronchial fistula should be considered if a patient with pancreatitis develops cough with sputum, dyspnea, or severe respiratory distress [1,2]. Pancreaticopleural fistula occurs in less than 1% of patients with acute pancreatitis 0.4% of patients with chronic pancreatitis [3-6]. Diagnosis of the pancreaticobronchial fistula usually relies on imaging [7]. A raised amylase and lipase in the sputum are pathognomonic, and it confirms the diagnosis of pancreaticobronchial fistula [8].

3. Lessons Learnt

Any new or worsening respiratory symptom should be further investigated in pancreatitis cases. Pancreaticopleural fistula and the collections can complicate to bronchopleural fistula later in the course of disease and should be managed promptly by interdisciplinary approach.

REFERENCES

1. Fekete F, Le Mee J, Langonnet F, et al. A surgical etiology of respiratory distress in necrotizing pancreatitis: pancreato-bronchial fistula. 3 cases. *Chirurgie*. 1989;115:106-12.
2. Iglehart JD, Mansback C, Postlethwait R, et al. Pancreaticobronchial fistula. Case report and review of the literature. *Gastroenterology*. 1986;90(3):759-63.
3. Tay CM, Change SK. Diagnosis and management of pancreaticopleural fistula. *Singapore Med J*. 2013;54(4):190-4.
4. Cazzo E, Apodaca-Rueda M, Gestic MA, et al. Management of pancreaticopleural fistulas secondary to chronic pancreatitis. *Arq Bras Cir Dig*. 2017;30(3):225-8.
5. Altasan T, Aljehani Y, Almalki A, et al. Pancreaticopleural fistula: an overlooked entity. *Asian Cardiovasc Thorac Ann*. 2013;22(1):98-101.
6. Mihai C, Floria M, Vulpoi R, et al. Pancreatico-pleural fistula - from diagnosis to management. A case report. *J Gastrointestin Liver Dis*. 2018;27(4):465-9.
7. Yamaguchi T, Katoh O, Hiura K, et al. A pancreatico-bronchial fistula with right hydropneumothorax. *Nihon Kyobu Shikkan Gakkai Zasshi*. 1989;27:620-4.
8. Cox CL, Jr., Anderson JN, Guest JL, Jr. Bronchopancreatic fistula following traumatic rupture of the diaphragm. *JAMA*. 1977;237(14):1461-3.