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A CASE OF RIGHT-SIDED PANCREATICO-PLEURAL FISTULA IN A CHRONIC PANCREATITIS PATIENT

Medicine

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ABSTRACT

Pancreaticopleural fistula (PPF) is a rare complication of chronic pancreatitis, characterized by the abnormal communication between the pancreatic duct and the pleural cavity. We present a case of a right-sided PPF in a patient with a history of chronic pancreatitis, discussing the clinical presentation, diagnostic challenges, and management strategies.

KEYWORDS

Chronic pancreatitis, pleural effusion, Pancreaticopleural fistula

INTRODUCTION

Pancreaticopleural fistula is a rare complication of chronic pancreatitis consequent to posterior disruption of the pancreatic duct. The fistulous track ascends into the pleural cavity and gives rise to large volumes of pleural fluid. Pancreaticopleural fistula thus poses a diagnostic problem since the source of pleural fluid is extrathoracic.[1] PPF may enter the pleural cavity through the sternocostal triangle, the caval hiatus or directly through the diaphragm.[2] The presence of the PPF is rarely associated with an active acute pancreatitis. Patients with fistulae tend to have a history of chronic, relapsing inflammation of the pancreas. Other pathologies inducing formation of the fistulae include gallstones, trauma, and anatomic anomalies of pancreatic ducts[3]. The management of pancreaticopleural fistula demands a comprehensive and individualized approach. Recognition guided by high clinical suspicion coupled with appropriate investigations and a careful balance between medical, endoscopic, and surgical interventions is crucial for achieving favorable outcomes.

Magnetic resonance cholangio pancreatography (MRCP) is very useful in depicting parenchymal and ductal structural changes along with direct visualization of a pancreaticopleural fistula. [4,5] PPF is treated conservatively and endoscopically. Surgery is performed within a small group of patients in whom other therapeutic approaches failed[6].

Case Report

A 35-years old male chronic alcoholic with no known comorbidities presented with complaints of Breathlessness on exertion since one month with retrosternal non radiating chest pain with blood tinged sputum production since last one month and also complaining of abdominal pain in epigastric region since last three weeks. which was dull aching in nature.

Patient also had a prior history of similar complaints two months back for which patient was admitted in outside hospital. Investigations were done there and noted to have severe Right side pleural effusion and complete collapse of right lung with tracheal deviation to right side.

Patient had done intercostal drainage and around two litre of hemorrhagic fluid was withdrawn and managed there after symptomatically. Patient had relief in symptoms and was discharged with medications.

On admission to the intensive care unit (ICU), of our institute on examination the patient was afebrile with heart rate of 98/min with BP of 112/80 with air entry decreased in right sided lung and minimal crepitations were also present on right Basal lung field with respiratory rate of 32/minute and was maintaining O2 saturation of 92% on 6 litre O2 support with Face mask.

On CNS examination Patient was conscious and oriented to time, place and person.

Pupils and planters were normal all the reflexes in all four limbs were normal with normal power and tone preserved.

On per abdominal examination pt had a mild tenderness on epigastric region. All the routine Laboratory studies were done. Which are as follow,

LABORATORY VALUES	
HB	7.4
TC	16000
DC	87/8
PLATELET	20000
PCV	21.2
MCV	75.1
MCH	22.5
MCHC	31
RBC	2.99
RDW	17.5
PT	22.4
APTT	32
INR	1.6

LABORATORY VALUES	
HCV	NEGATIVE
HIV	NEGATIVE
HBSAG	POSITIVE
CRP	102.4
PCT	2.59
S. AMYLASE	>400
S. LIPASE	510
ALKPO4	100

LABORATORY VALUES	
UREA	21
CREATININE	0.6
SGPT	18
SGOT	44
BILIRUBIN	1.1 (0.6/0.5)
NA+	133
K+	3.0
CL-	97

Patient's sputum AFB was negative.

Imaging studies were also done. Chest Xray showing Massive Right sided pleural effusion.

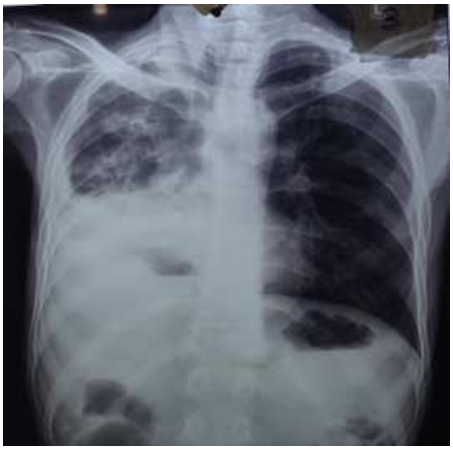

Fig. 1

Ultrasonography of Abdomen and pelvis showing liver and spleen within normal range with no abnormalities. Pancreas appears heterogenous in echo-texture with calcific foci and multiple peri pancreatic subcentimetric lymph nodes suggestive of Chronic pancreatitis. Ultrasonography of thorax was done which was showing Thick walled loculated collection of approximately 700ml volume noted in right pleural cavity with underlying large consolidatory area.

For further evaluation CT scan of Abdomen was also done.

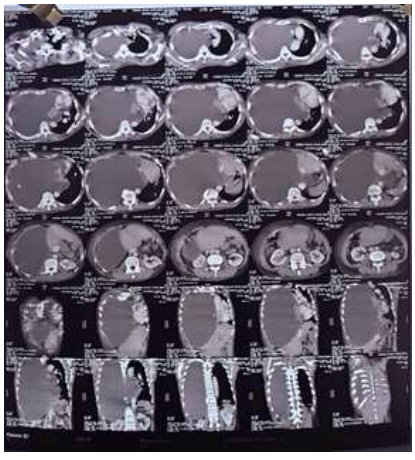

Fig. 2

Which was showing multiple peripherally enhancing intercommunicating multi loculated fluid collections within proximal body of pancreas and peripancreatic region extends superiorly in thoracic cavity on right side and in close proximation to medial basal segment bronchioles suggestive of acute on chronic pancreatitis with peripancreatic and peritoneal collections with associated right pancreatico-pleural fistula.

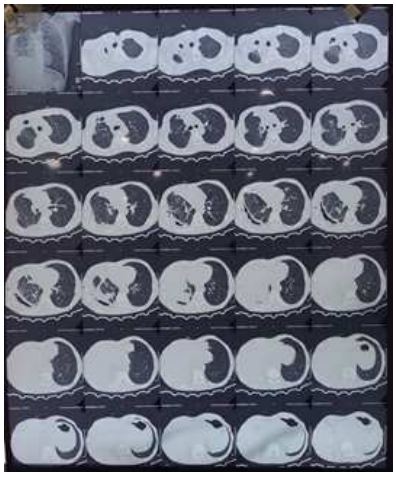

Fig. 3

Diagnostic and therapeutic pleural fluid aspiration done, which revealed dark red hemorrhagic pleural fluid suggestive of haemorrhage within the pleural cavity. Approximately 700 ml of fluid was withdrawn revealing large volume of hemorrhagic pleural effusion. The fluid was not overtly turbid, with watery consistency with subtle cloudiness with No specific or abnormal odour was noted during the examination, suggestive of the absence of infectious or purulent components in pleural fluid. Pleural fluid analysis as follow;

PLEURAL FLUID ANALYSIS	
PROTEIN	5.3 g/dl
GLUCOSE	71 mg/dl
TOTAL COUNT	650 (Netrofils 30%, lympho 70%)
FLUID LDH	1650 u/l
FLUID AMYLASE	6440
FLUID ADA	32 mcg/l

The comprehensive treatment approach with medical, endoscopic, and surgical interventions was done.

Regular clinical evaluations were done to assess and monitor the symptoms, vital signs, and overall progress of the patient.

With appropriate antibiotic use and resuscitative fluid therapy pt was recovering well.

Patient's daily basis improvement and symptomatic relief were considered, Important factors such as the resolution of Nausea, vomiting chest pain, and respiratory distress. After achieving significant clinical improvement and Resolution of the pancreaticopleural fistula (PPF) and associated symptoms, the patient was considered for discharge with symptomatic medications.

Ethics

Informed consent was taken from the patient.

Declaration of patient consent The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given his consent for his images and other clinical information to be reported in the journal. The patient understands that his name and initials will not be published and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES:

1. Aswani, Yashant, and Priya Hira. "Pancreaticopleural fistula: a review." JOP. Journal of the Pancreas 16, no. 1 (2015): 90-94.
2. Wypych K, Serafin Z, Gałązka P, Strześniewski P, Matuszczak W, Nierzwicka K, Lasek W, Prokurat AI, Bąk M. Pancreaticopleural fistulas of different origin: Report of two cases and a review of literature. Pol J Radiol. 2011 Apr;76(2):56-60. PMID: 22802835; PMCID: PMC3389915.
3. King JC, Reber HA, Shiraga S, Hines OJ. Pancreatic-pleural fistula is best managed by early operative intervention. Surgery. 2010 Jan;147(1):154-9. doi: 10.1016/j.surg.2009.03.024. Epub 2009 Jun 9. PMID: 19744435.
4. Khadka M, Bhusal S, Pantha B, Gautam R, Gautam K, Chaudhary A. Pancreaticopleural fistula causing pleural effusion: a case report and review of the literature. J Med Case Rep. 2024 Mar 29;18(1):131. doi: 10.1186/s13256-024-04457-8. PMID: 38549170; PMCID: PMC10979574.
5. Vyas S, Gogoi D, Sinha SK, Singh P, Yadav TD, Khandelwal N. Pancreaticopleural fistula: an unusual complication of pancreatitis diagnosed with magnetic resonance cholangiopancreatography. JOP. 2009 Nov 5;10(6):671-3. PMID: 19890191.
6. Olakowski, Marek, H. Mieczkowska-Palacz, E. Olakowska, and P. Lampe. "Surgical management of pancreaticopleural fistulas." Acta Chirurgica Belgica 109, no. 6 (2009): 735-740.