Original Research Paper

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Pulmonary Medicine

A CASE OF RIGHT SIDED PLEURAL EFFUSION DUE TO ACUTE ON CHRONIC PANCREATITIS : A CASE REPORT

Dr. D Kavya* Department Of Pulmonology, Shanthiram Medical College And General Hospital Nandyal , Ap ,518501. *Corresponding Author

Dr. Veera Sekaraiah Madduri Department Of Pulmonology, Shanthiram Medical College And General Hospital Nandyal , Ap ,518501.

Dr. Chakaradhar Puligunta Department Of Pulmonology, Shanthiram Medical College And General Hospital Nandyal , Ap ,518501.

ABSTRACT A 37 year gentlemen presented with shortness of breath, non-productive cough, right side continuous chest pain since 10-days. He is an alcoholic and smoker and had past history of abdominal pain. On examination he is found to be tachypneic and signs suggestive of right pleural effusion present. Ultrasonogram of chest revealed right pleural effusion of 600cc. therapeutic aspiration of pleural fluid done and sent for analysis which revealed 3.1gm/dl of proteins and ADA :24IU/L. Recurrent collection of pleural fluid was observed and depending on personal history and symptoms of abdominal pain and negative ADA levels , pancreatic pleural effusion was suspected. serum amylase(1500IU/L) and pleural fluid amylase(18750U/L)[1] along with ultrasound abdomen which showed chronic calcific pancreatitis with minimal ascites . MRCP done which showed acute on chronic pancreatitis with collection inferior to stomach tracking through oesophageal hiatus to right pleural space.

KEYWORDS :

INTRODUCTION :

PANCREATIC PLEURAL EFFUSION: Four non malignant pancreatic causes for pleural effusions are[2] :

1) acute pancreatitis
2) pancreatic abscess
3) chronic pancreatitis with pseudocyst
4) pancreatic ascites

PLEURAL EFFUSION IN ACUTE PANCREATITIS :

Pleural effusion in pancreatitis indicates severity.

Incidence of pleural effusion is :

84 % in severe pancreatitis

8.6 % in mild pancreatitis

PATHOPHYSIOLOGY :

Diaphragm has many major and minor openings - trans diaphragmatic numerous lymphatic anastomoses between pleural and peritoneal aspects of diaphragm tail of pancreas is in direct contact with the diaphragm if pancreatic pleural effusion does not resolve within 2 weeks of treatment think of pancreatic abscess or pancreatic pseudocyst.

PLEURAL EFFUSION IN CHRONIC PANCREATITIS :

PSEUDOCYST : collection of fluid and debris rich in pancreatic enzymes

PATHO PHYSIOLOGY : direct sinus tract between pleura and pancreas

PLEURAL EFFUSION : massive.

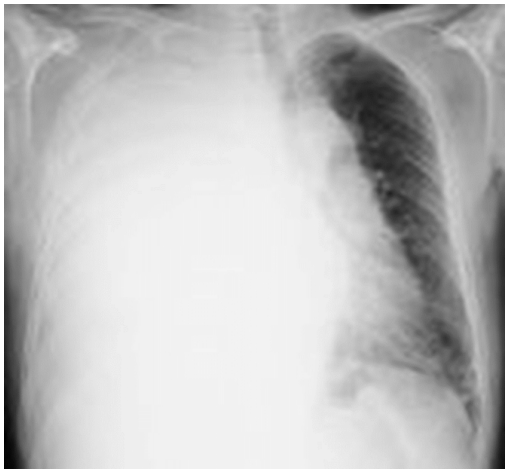
most cases are on left side followed by right and bilateral[3].
rapid and recurrent collection.

CASE REPORT :

A 37-year-old male presented with shortness of breath, non-productive cough, right side chest pain of pricking type and continuous for last10 days, who is smoker and alcoholic and had a past history of abdominal pain. On clinical examination he is tachypneic and other examination findings are suggestive of right pleural effusion

INVESTIGATIONS:

Investigations :complete hemogram was normal, sputum for AFB was negative , viral markers were negative, USG chest: moderate rt sided pleural effusion of 600cc.Pleural fluid analysis: proteins : 3.1 gm/dl, ADA : 24 IU/L, Ultrasound abdomen: chronic calcified pancreatitis, minimal ascites ,pleural fluid amylase:18750IU/L[1] . Serum amylase : 1500 IU/L , Calcium : 7.2 mg/dl. MRCP: suggestive of acute on chronic pancreatitis with collection inferior to stomach tracking through oesophageal hiatus to right pleural space



DIAGNOSIS:

Pancreatic right sided pleural effusion.

TREATMENT GIVEN:

Thoracostomy done, Oral pancreatic enzyme supplementation, calcium supplementation and other supportive treatment given[4] .

DISCUSSION :

In spite of therapeutic aspiration there is recurrent collection of pleural fluid and as patient was an alcoholic [3] and had history of severe abdominal pain and ADA was negative. pancreatic pleural effusion was suspected which later confirmed by MRCP and increased pleural fluid amylase levels of 18750 IU/l which is more than serum amylase levels[5].

According to LANKISCH ET AL study out of 133 cases of pancreatitis 50% had pleural effusions , 77% were bilateral , 16% were left sided and only 8 % were right sided [6].

CONCLUSION :

In pancreatic pleural effusions right side pleural effusion is not a common entity. In our case right sided pleural effusion was found to be due to ascitic fluid tracking through oesophageal hiatus to right pleural space.

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