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Pancreatic Pseudocyst Masquerading As Right Lung Mass: A Case Report

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ABSTRACT:
Pancreatic pseudocyst is a common complication of acute or chronic pancreatitis. But rarely itmay extend into the mediastinum. A case of 51 years old male presenting with cough, fever,dysphagia, head reeling and shortness of breath is being here reported. The patient is chronicalcoholic with history of alcohol intake for the past 25 years (country made liquor). Prior to thisepisode the patient has no relevant medical history. On admission a chest radiograph wasordered which revealed right lung upper zone mass. ECG was not significant with sinustachycardia and 2D-ECHO revealed a mass compressing the right ventricle. An upper-GIendoscopy was done for dysphagia which showed extrinsic compression of the middleesophagus. To rule out right upper zone lung mass a CECT of thorax was ordered which revealedpseudocyst pancreas extending into the mediastinum. An USG of thorax and abdomen was donewhich revealed anechoic cystic lesion in retrocardiac paraoesophageal region (upper extent wasnot visualized) with visible communication with abdominal peri pancreatic cyst. On abdominal USG pseudocyst of pancreas with mediastinal extension was made.
The symptoms arose due to compression of the surrounding structure by the mediastinalpseudocyst. USG guided aspiration of the cystic component was done which revealed veryhigh (3000iu/l) Amylase level. As per a surgery consultation ERCP was performed which showednormal ductal anatomy. There was no communication between pancreatic duct and thepseudocyst of pancreas. The late and delayed presentation can be attributed to the fact that fluidcollection would have enlarged slowly. As there was inflammatory mass in the body and tail regiondistal pancreatectomy and cystogastrostomy was done. The patient was shifted to ICU postoperation and recovered well. Patient was discharged with advice for a follow up after 15days.
Approximately 50 cases of mediastinal extension of pseudocyst pancreas are reported.

I. CASE REPORT:

A 51 years old male presented to the emergency department with a 15 days history of productive cough, 5 days history of fever, 5 days history of dysphagia, 2 days history of head reeling and 1day history of shortness of breath. The shortness of breath was exertional and increased on activities. The cough was productive but not associated with blood tinge. The dysphagia was typically to solid food. Was able to drink liquids without any difficulty. For the past two days he was feeling light headed on getting up from bed which the family members attributed to weakness following unable to take food. Fever was low grade, subsided on taking medications but again returned after the effect of medications weaned off. It was not associated with chills and rigor.

The patient has no significant past medical history. It was his first hospital admission. At this admission his vitals were: Blood pressure of 70/50 mmhg ,Heart rate of 110/min regular, on admission he was afebrile with saturation of 91% in room air. On physical examination there was no pallor edema icterus, JVP was not raised. There was no thyromegally. Cardiopulmonary examination revealed coarse crackles over right mammary, apical, right upper interscapular area.

Per abdominal examination revealed nonspecific tenderness on deep palpation over epigastric area without any evidence of mass, organomegaly, with normal bowel sounds. Laboratory work up revealed an elevated Total leukocyte count of 26.21x10*3/mcl, ESR 20mm/1st hour. Sodium 120 mmol/l. Inflammatory markers were raised with Sr ferritin >1000ng/ml, CRP 200 mg/l. Albumin 2.2 g/dl. Lipid profile, Liver function test (AST- 56 IU/L, ALT-28IU/L), Renal function test, serology (HIV, HBsAg, HCV) was non-reactive. Sputum AFB- negative, sputum CBNAAT- negative, sputum culture/sensitivity showed no growth. Sr amylase was normal, lipase was 295 IU/L Cardiac enzymes normal, ECG showed sinus tachycardia.

Admission chest X-ray revealed a right upper zone opacity which was suspected to be a lungmass. 2d echo done to rule out cardiac cause of shortness of breath revealed a mass compressing right ventricle.

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CECT thorax done revealed pseudocyst pancreas extending into mediastinum (mediastinal pseudocyst), right upper lobe lung fibrotic strands.

USG abdomen pelvis revealed pseudocyst pancreas (? Mediastinal extension)

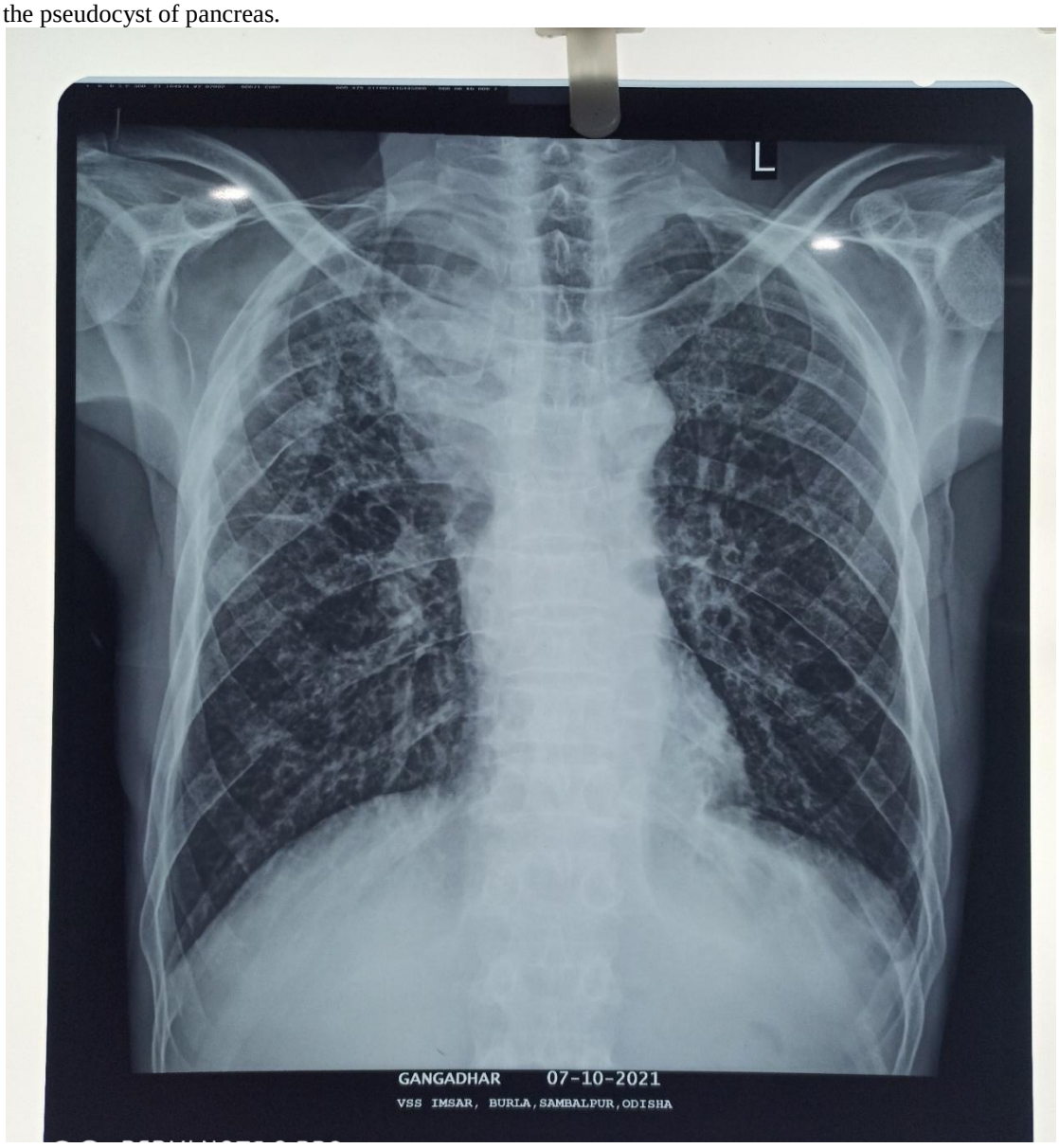
USG thorax revealed - anechoic cystic lesion noted in retrocardiac para-esophageal region (upper extent not visualized) with visible communication with abdominal peripancreatic cyst. An Upper-GI endoscopy done revealed compression of middle esophagus by an extrinsic mass.

As per surgery consultation an ERCP was done which revealed normal ductal anatomy. There was no communication between pancreatic duct and the pseudocyst of pancreas.

USG guided drainage of cystic structure was done which revealed high amylase level (3000iu/l).

The patient was treated with Inj meropenem 1gm IVTds with 100 ml ns for 7 days, Inj pantoprazole40 mg IV od for 7 days, Inj ondansetron 4mg IVTds, Inj noradrenaline 4 amp with one pint ns @20mcd/min, IV f NS/dns, Inj thiamine 200 mg with 100 ml ns IVBd for 5 days and Inj octreotide 50mcgTds for 7 days.

Since the there was an inflammatory mass in the body and tail region distalpancreatectomy and cystogastrostomy was done. Post op the patient was shifted to ICU and hegradually recovered.



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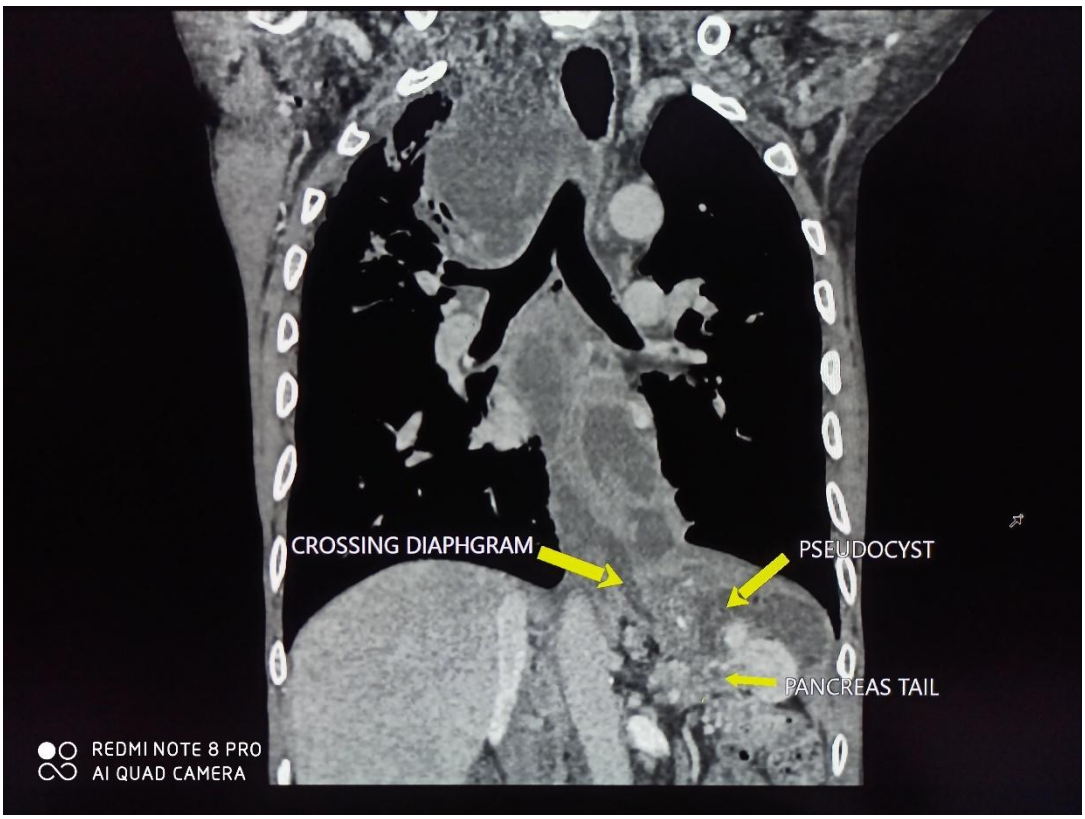

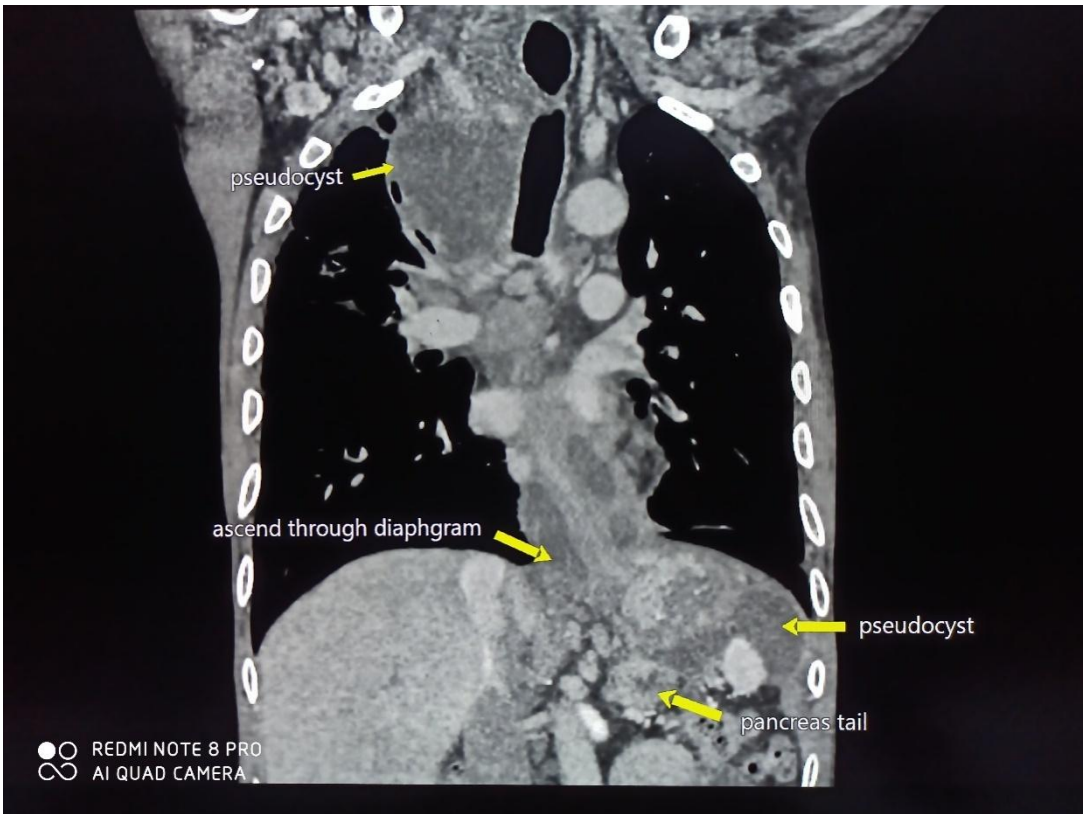

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He reported improvement in his symptoms after the procedure and a 15days post procedurefollow up was done in the medicine OPD. Now he is asymptomatic.

II. DISCUSSION:

We report a very rare case of a large mediastinal pseudocyst causing compression of cardiacchamber (right ventricle), and of esophagus and presenting with cough, fever, dysphagia, headreeling and shortness of breath. The most remarkable part of this case was that it was the firstpresentation of the patient that required hospitalization. Prior to this the patient has never beenadmitted to any hospital and there has never been a history of acute or chronic pancreatitis.

Pseudocyst of pancreas is a very common complication of acute and chronic pancreatitis butextension into mediastinum is as much a rarity. These are termed pseudocyst because these arenot lined by epithelium. The symptoms often mislead to some other diagnosis leading to delay inthe patient getting proper treatment. There have been case reports of very few mediastinalpseudocyst pancreas. The cause of mediastinal extension of pseudocyst is unknown.

Diaphragmatic openings for the esophagus and aorta are the most common sites of entry into theposterior mediastinum.[1] Symptoms are primarily the result of compression or invasion ofmediastinal structures and patients may present with dysphagia, pseudoachlasia, odynophagia,dyspnea, weight loss, and/or chest pain.[2]

The interesting part in our case being this is the first ever presentation of the patient. May be thepatient must have had non-significant abdominal pain in the past which he would have ignored or this would have been the first ever presentation of acute pancreatitis that would have beencomplicated with pseudocyst. Pseudocyst can be a complication in both acute and chronicpancreatitis with chronic pancreatitis being more commonly seen complicating with pseudocystformation.[3]

Pseudocyst themselves can get complicated in 5-40% of cases. Infections, intra-cystichemorrhage, enlargement with mass effect causing obstruction of the surrounding structure.[4]The diagnosis of the pseudocyst was done by CECT thorax and ERCP confirmed the same. Inmany cases the presentation can vary and mimic other dangerous and life-threateningdisorderslike AMI, PE. Hence early detection and treatment for the same is very crucial in predicting theoutcome.There is no particular algorithm for the treatment of this rare entity. The treatment is guided uponby anatomy, size of pseudocyst, and presence and severity of symptoms. [5]. For the patientspresenting with smaller cysts, and being hemodynamically stable conservative management withfluids, octreotide, bromhexine hydrochloride parenteral nutrition is the mainstay of therapy.[6]Howeverlarge,symptomatic pseudocyst is all together a different ball game that requires theinterplay of both invasive and noninvasive procedure. Treatment with invasive therapies such assurgery (distal pancreatectomy, pancreatic head resection, cystojejunostomy, cystogastrotomyorpuestow procedure etc) have been reported. But in many case Drainage procedure can beperformed percutaneously under CT or USG guided or alternatively they may be performedendoscopically via. [7, 8]. Since this is a very rare casethere has never been any study in whichvarious procedures mentioned above have been compared and outcomes compared.

However ajmera and judge [5] have presented treatment algorithm that takes into account thehemodynamicstability , anatomy, size , symptomatology of the patient. They have suggested thatall unstable patients with life threatening complications should be treated with open surgery.Whilethe management of stable patients should be decided upon by the size of the pseudocyst andpresence of symptoms. Symptomatic and large cysts should be treated by drainage preferablyendoscopic. Asymptomatic patients should be treated conservatively and followed up.

Our patient was initially treated in the lines of sepsis and once the diagnosis was confirmed it wastaken up for USG guided aspiration of cystic content which revealed high amylase (3000iu/l) andnegative for tumor markers and other infective markers. The patient was taken for distalpancreatectomy and cystogastrostomy and subsequently the patient was shifted to the ICU andthe patient improved dramatically. The dysphagia had subsided, he was gradually weaned offfluids and other medications and was discharged on an oral diet.The patient came for follow up after 15 days and was doing well with most of his symptomssubsided.

III. CONCLUSION:

Mediastinal pancreatic pseudocyst should be suspected in a patient presenting with atypical chestpain, dyspnea, or dysphagia, in the setting of a clinical history of pancreatitis or as in our case withchronic history of alcohol ingestion without any past history of acute of chronic pancreatitis or

hospitalization per se. It is important to make the correct and timely diagnosis for theoutcome of the disease if undiagnosed or untreated timely can be fatal. A low attenuated thin-walled cystic mass in the mediastinum compressing on the mediastinal structure with CT scan ofthorax(with or without contrast), aided by MRCP/ERCP can give a definite diagnosis. Alsopostdrainage the fluid drained can be sent for biochemical evaluation to look for amylase lipase level.

Serum amylase and lipase level may or may not be suggestive but should also be ordered. There are many modalities of treatment available depending on patient status including conservative, drainageprocedures or as in our case an open surgery. Physicians should be aware of atypical presentationsand treatment options available for such mediastinal extension of a pseudocyst in a patient with ahistory of acute or chronic pancreatitis or only with a long history of alcohol intake without anyprior hospital admission.

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