

Mediastinal enteric cyst

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Abstract

A 20-year-old female presented with complaints of right-sided chest pain, cough, fever and shortness of breath for the preceding one-and-a-half year. Air entry was decreased over the middle and lower chest. Computed tomography scan of the chest revealed a cystic lesion with thick margins present in the right hemi-thorax. The cyst was excised by posterolateral thoracotomy. Histopathology revealed it to be mediastinal enteric cyst with intestinal and pancreatic tissue.

Keywords: Mediastinal cyst, Enteric cyst, Congenital cyst.

Introduction

Cystic lesions of the mediastinum are uncommon, comprising 12% to 18% of all primary mediastinal tumours, found both in adults and infants.^{1,2} Sixty percent of enteric cysts are diagnosed in patients younger than 1 year.³ Foregut duplication cysts account for 10% of all mediastinal tumours.⁴ We report a case of a mediastinal enteric cyst with intestinal and pancreatic tissue.

Case Report

A 20-year-old female presented with complaints of right-sided chest pain, cough, fever and shortness of breath for the preceding one-and-a-half year. Cough was productive, with white sputum. She had dyspnoea which occurred with mild exertion during which the patient was unable to do her daily routine work and it used to get relieved by rest. All these symptoms used to get relieved within two to three weeks followed by another attack of these symptoms. The respiratory examination showed bilateral symmetrical chest movement, but less on the right side. The trachea was central. The movements were decreased on the right side. The percussion note was dull. Air entry was decreased over the middle and lower chest. Rest of the

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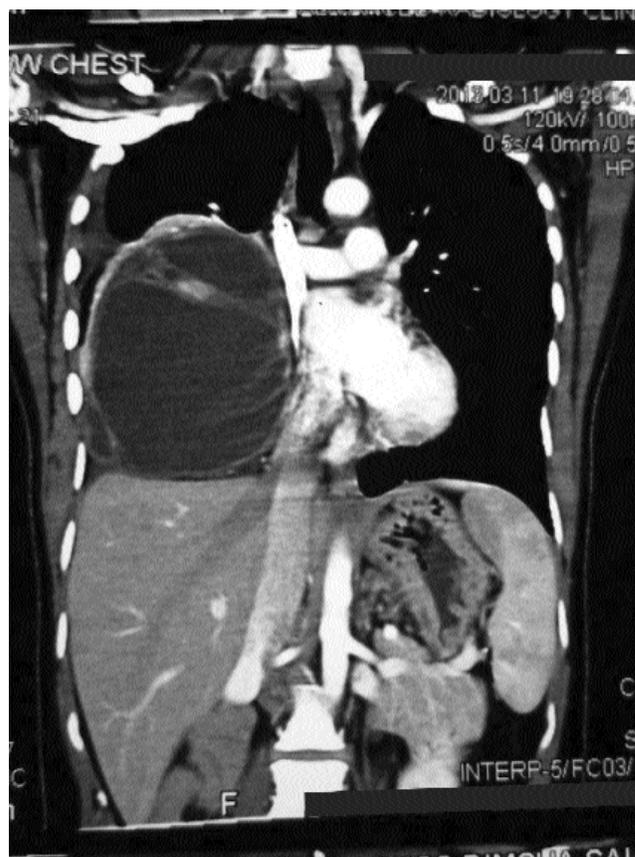


Figure-1: Computed tomography scan chest coronal section showing cystic lesion in right hemi-thorax.

systemic examination was unremarkable.

Chest X-ray showed a homogenous opacity in the right middle and lower zone. The right heart border and diaphragm were not visible. Laterally, the haziness was extending up to the right chest wall. The trachea was central.

Computed tomography (CT) scan of the chest revealed a lesion with hypo-dense attenuation and thick margins present in the right hemi-thorax pushing the heart and vessels to contralateral side, and diaphragm downwards suggestive of a cystic lesion with intra-cystic septation.

The baseline investigations were normal, including

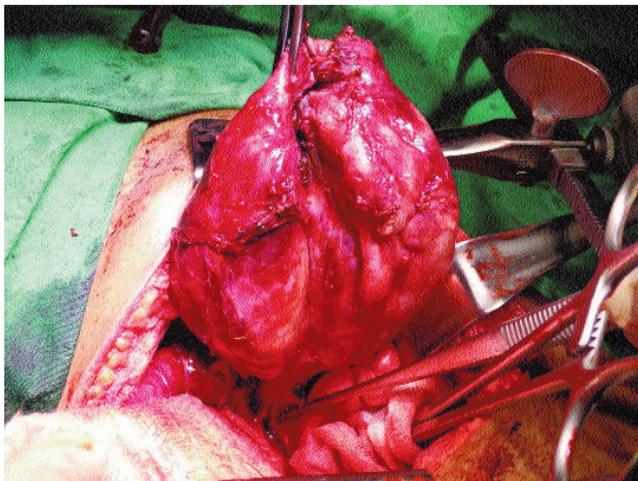


Figure-2: Operative picture of excision of cyst; forceps indicating it is arising from posterior mediastinum.

blood sugars. After anaesthesia fitness, the patient was planned for thoracotomy and excision of mediastinal cyst. Right postero-lateral thoracotomy was performed. The cystic lesion was found in the lower hemi-thorax that was adherent with the diaphragm, lower lobe of the lung and pericardium, arising from the posterior mediastinum (Figure-1). It was thick-walled, separated from surrounding structures and excised (Figure-2). After excision, the lower lobe of the lung was fully expanded. The biopsy report revealed solid and cystic tissue showing mature intestinal epithelium and pancreatic acinar tissue without any evidence of immature teratomatous elements. There was no evidence of malignancy. Diagnosis was of mediastinal enteric cyst.

Upto one-year follow-up, the patient remained symptomless with satisfactory chest X-ray.

Discussion

Foregut duplication cyst occurs as a result of congenital malformation and constitutes 10%⁴ of mediastinal tumours. Mediastinal cyst are classified as congenital and acquired. Congenital mediastinal cysts are further classified into mesothelial, foregut and lymphatic. Foregut mediastinal cysts are of four types; Bronchogenic, oesophageal, gastro-enteric and neuro-enteric.⁵ Entericmediastinal cyst is the least common⁴ type of foregut duplication cyst. It is a rare finding and presents in both adult and early life.^{1,2} Definite diagnosis of an enteric cyst is done only by surgical excision and tissue biopsy. Mediastinal cyst has low morbidity and mortality and treatment of choice is surgical excision.⁶ Complications of enteric cyst defined

in literature are ulceration and perforation due to the presence of gastric mucosa.⁵ In our case, we found both intestinal and pancreatic tissue in the wall of cyst.

We found few case reports of patients with enteric mediastinal cyst with pancreatic tissue in the literature search. Out of seven case reports, five patients presented in adult life.^{1,3,7-11} Presenting complains of the patients were variable; the most common being dyspnoea and central chest pain. In two case studies reported in neonates the presenting complaint was respiratory distress.^{1,8} In our case, the patient presented with complaint of right-sided chest pain, cough, fever and shortness of breath.

In terms of the size of the cyst, our patient had a cyst measuring 9x9cms, while in other cases the maximum size reported was 16x13cms.¹¹

The location of mediastinal cyst in our case was the posterior mediastinum, while four cases^{3,9-11} reported an anterior mediastinal cyst. One study¹ reported a posterior mediastinal cyst. Another reported an extensive mediastinal mass and yet another reported a mediastinal enteric cyst with pancreatic tissue and was associated with a communicating hydrocephalus.^{7,8}

In our case, on histopathology, intestinal and pancreatic tissue was found in the wall of cyst. When compared with other cases, 5 reports out of 7 found only pancreatic tissue in the cyst.^{3,7,9-11} One reported gastro-enteric type cyst with respiratory epithelium and pancreatic tissue,¹ while one⁸ found both pancreatic and gastric tissue.

Conclusion

As surgical excision has good results, such patients should be identified early, clinically and radiologically, by keeping strong suspicion of late presentation of congenital mediastinal lesions, thus preventing morbid complications.

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