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Large Enteric Cyst in Anterior Mediastinum: A Rare Case Report

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ABSTRACT

Mediastinal enteric cysts occurs rarely amongst adults and are encountered mostly in neonates and infants. In most cases they present as a right posterior mediastinal mass, often accompanied by vertebral defects. A case of a 69 years old female who had a mediastinal mass on chest X-ray as an incidental finding was reported to us. Computed Tomography (CT) scan was performed and found to have a cystic mass in the left anterior mediastinum with no associated vertebral anomalies. Posterolateral thoracotomy followed by cyst excision was performed. Histopathology report confirmed to be an enteric cyst.

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Introduction

Mediastinal enteric cyst is a rare congenital cyst of the mediastinum encountered mainly in neonates and infants which occurs due to malformation during embryogenesis. Foregut cysts includes bronchogenic, esophageal, and enteric cysts account for 12% to 16% of all primary mediastinal masses. Mediastinal enteric cysts has a rare occurence of only 1–2% of total mediastinal cysts (1-2). Enteric cysts are very rare in adults, histology showed cyst wall to have a layer of smooth muscle, cyst is lined by mucosal epithelium. Before the age of 1 year 60% of these cysts are found. Cysts manifest as a right posterior mediastinal mass in more than 70% of cases, often accompanied by vertebral defects (3). We have reported a rare case of giant enteric cyst in elderly arising from left anterior mediastinum without any vertebral defects.

Case Report

A 69 years old female asymptomatic in nature was found to have a mass which involved lower zone of left lung, which was an inccidental finding on chest X-ray done as a routine follow-up (Figure 1). She had an intra cardiac repair for atrial septal defect with tricuspid valve annuloplasty 15 years back. Computed Tomography (CT) scan was performed which revealed a well-defined,

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lobulated multiseptated cystic lesion, measuring 11 ×7.7 ×9.4 cm in the left anterior mediastinum without any invasion of adjacent structures (Figure 2). Left posterolateral thoracotomy followed by complete excision of cyst was performed while preserving all adjacent structures. (Figure 3). Cyst showed no continuity with neither bronchus nor esophagus. Post-operative recovery was uneventful. Histopathology report of cyst described it as a multiloculated cyst, lined by cuboidal to columnar epithelium. The walls of the locules are composed mainly of loose fibrocollagenous tissue with islands of squamous cells with keratinization, clusters of lymphocytes, hemosiderophages, adipose tissue and calcifications. Cyst had smooth muscles which were arranged in two layers with no cartilage. Based on operative findings and histology, this specimen was finally diagnosed as multilocular large enteric cyst (Figure 4). MRI scan of spine to check for vertebral anomalies was not done because of patient refusal. Patient had uneventful postoperative outcome.

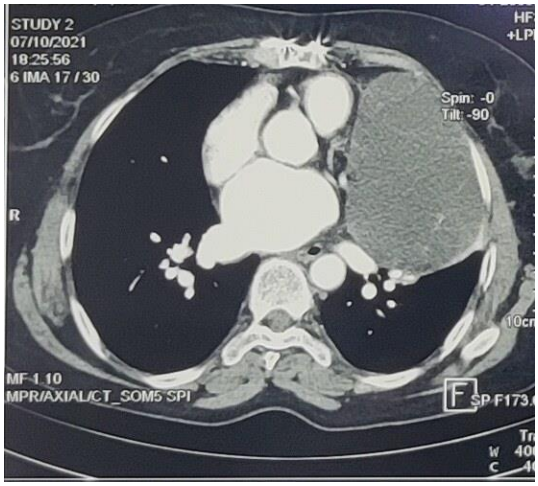

Figure 2. CT scan demonstrating large cystic lesion in anterior aspect of left lung.

Discussion

Foregut cysts are classified into enteric cyst, bronchogenic cyst, and esophageal duplication cyst and are differentiated on the basis of origin and histology (1). We reported a rare case of enteric cyst arising from left anterior mediastinum in an adult, most commonly they arise from right posterior mediastinum (3).

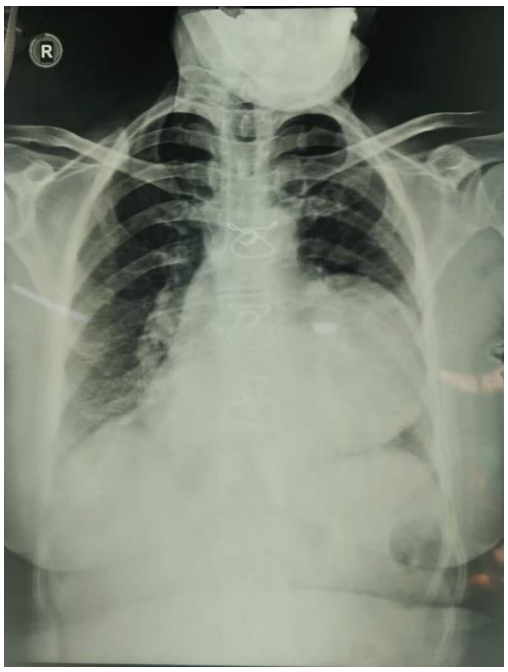

Figure 1. Chest - Xray demonstrating left lower zone mass.

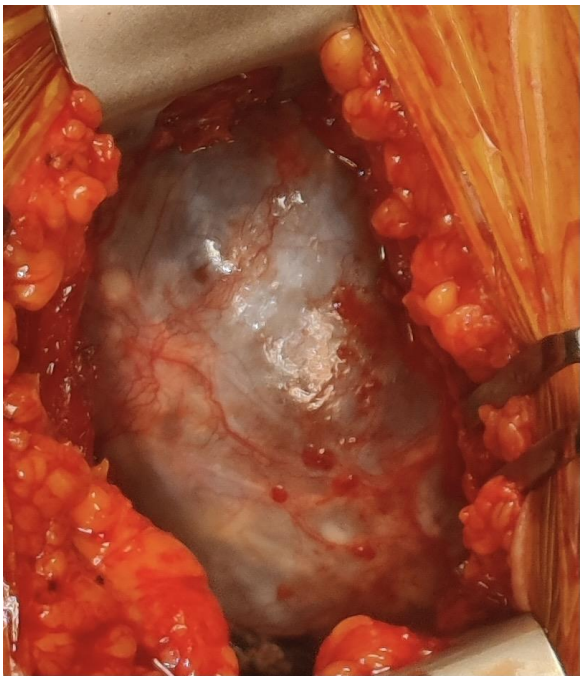

Figure 3. Large cyst can be seen after doing leftposterolateral thoracotomy.

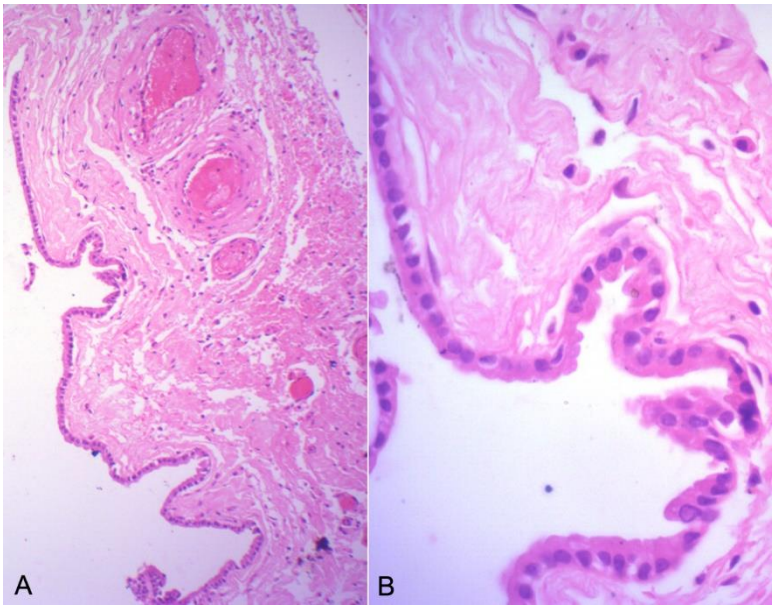

Figure 4. Histopathology shows it as a multiloculated cyst, lined by cuboidal to columnar epithelium. The walls of the locules are composed mainly of loose fibrocollagenous tissue with islands of squamous cells with keratinization, clusters of lymphocytes, hemosiderophages, adipose tissue and calcifications. Cyst had smooth muscles, arranged in two layers, and did not contain any cartilage.

Enteric cysts are formed due to incomplete separation of the notochord and primitive foregut which then forms traction diverticulum and eventually develops into enteric cysts (1). Enteric cysts are found in the right posterior mediastinum in most cases. In the present case patient was asymptomatic and cyst was found to be in the left anterior mediastinum without any vertebral abnormalities. Complications like ulceration and perforation can occur due to presence of pancreatic or gastric tissue which leads to haemoptysis and haematemesis. Enteric cyst can lead to development of malignancies like adenocarcinoma or squamous cell carcinoma (4). Our case is unique firstly, enteric cysts are mostly found in the right posterior mediastinum while in this case it was present in the left anterior mediastinum. Secondly, it was found in elderly with no vertebral anomalies. Wei-Li Huang et al's reported a similar case but was located on the right side. Zhang KR, et al had reported vertebral anomalies in 12 out of 16 patients with enteric cysts (5). His published literature revealed only four cases of mediastinal enteric cysts in atypical locations which excludes right posterior mediastinum which is a common site. Out of four cases, two were located in left posterior mediastinum, one was in the anterior mediastinum and last was in the middle mediastinum (6-8). Treatment of choice for most mediastinal masses is complete resection. Even though the cyst which we have reported is extremely large, but patient underwent resection of the cyst successful.

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