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Mediastinal Teratoma : a Case Report

KEYWORDS

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Introduction

Although most common site for the development of extragonadal germ cell tumor is mediastinum , mediastinal germ cell tumor occurs in only 1% to 5% of all germinal tumors.[1][2] Benign teratomas of the mediastinum are rare, representing 10% to 20% of all tumors of this region. [2] Most teratoma appear in anterior mediastinum only 3% to 8% appear in posterior compartment.[3][4]

Case report :

A 26 years old female patient presented with complaints of non radiating dull aching chest pain, heaviness in chess and back pain since 1 month. No history of breathlessness. No other complaints related to cardio-respiratory system noted.

Patient was subjected to X-ray chest which revealed well defined lobulated mass in the left lung field lying anteriorly.

On further imaging CT scan of Chest revealed large multiloculated lesion approximately 8.3 x 7.5 x 10 cms (AP x TR x SI) with predominantly cystic and enhancing solid components within seen in the anterior Mediastinum of the left side. Mass was abutting the main pulmonary trunk and left pulmonary arteries, pulmonary veins, arch of aorta and left border of the heart. It was causing passive atelectasis of the left upper lobe. Rest of the CT scan was normal.

Hematological tests were performed; serum AFP and serum B hcg were within normal limits. Complete blood count, renal and liver function tests were within normal limits. Echocardiography showed normal LV function and mild PH.

After thorough preoperative examination and investigations patient advised for left thoracotomy and under general anaesthesia with double lumen endotracheal tube. Patient posted for surgery and mediastinal mass was excised along with pericardiectomy as to remove tumour completely. Intraoperative and postoperative period was uneventful.

Histopathological report was consistent with mature cystic Mediastinal teratoma associated with multiloculated thymic cyst.

Discussion :

Most mediastinal teratomas does not produce any symptoms, and if present they are commonly associated with compression of adjacent structures, mainly those of the respiratory system. Sometimes it is not possible to diagnose a teratoma on the basis of imaging examinations only. To make the diagnosis of teratoma, it is mandatory to find at least two of three germ layers.[5] Benign teratoma occurs approximately 70 percent of mediastinal germ cell tumors in children and 60 percent in adults.

In most cases, half of the patients with benign teratomas comes without clinical symptoms at presentation, whereas 90 to 100 percent of patients with malignant mediastinal germ cell tumors have clinical symptoms.[6]

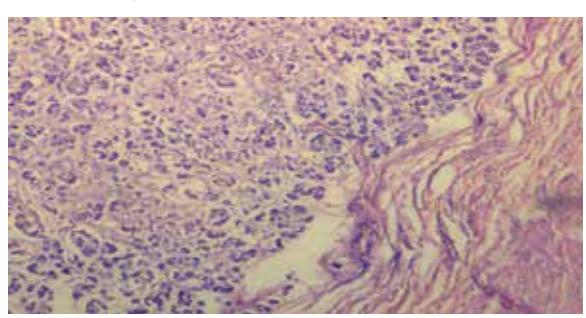
In our case patient's symptoms were mostly due to pressure over surroundings organs.

Like our patient with benign teratoma b-hcg and AFP level were normal and significant rise implies malignant tumor.

Complete resection of benign Mediastinal teratoma should result in complete cure and there is no role for chemotherapy or radiotherapy. As these tumors are benign, surgical removal can be difficult as these tumors densely adherent to adjacent vital structures such as pericardium, lung and major vessels. In these condition sometime more extensive surgery needed including pericardiectomy or lobectomy.[6]

Summary :

Even if mediastinal germ cell tumors are rare but they are among the common Mediastinal tumors. So this tumor should be considered in differential diagnosis of anterior mediastinal masses. Benign teratomas are are common in anterior Mediastinum and complete surgical resection can result in complete cure.



(Histopathology slide)

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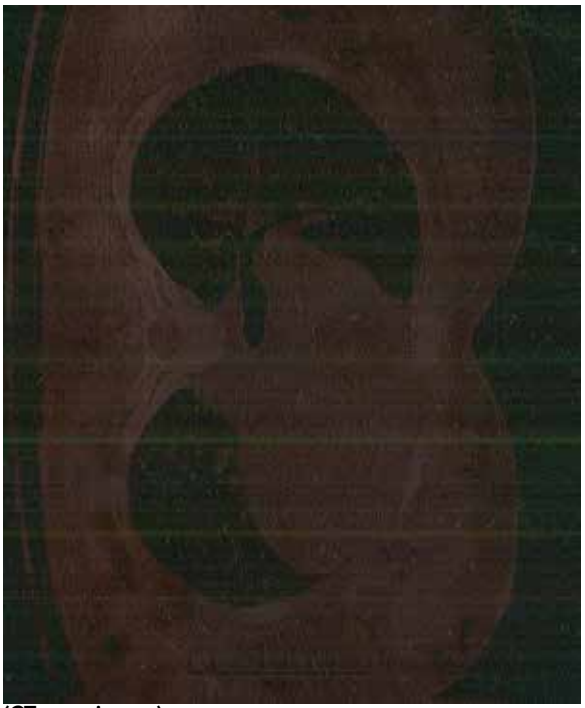
(chest X ray)



(CT scan image)

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