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A Rare Thymoma Type Presenting as a Giant Intrathoracic Tumor: Lipofibroadenoma

Dev İntratorasik Tümör Olarak Görülen Nadir Bir Timoma Tipi: Lipofibroadenoma

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Abstract

Type B1 thymoma (lipofibroadenoma) is extremely rare. The tumor is characterized by an organoid appearance rich in lymphocytes with medullary differentiation and perivascular spaces. A twenty-three-year-old female patient was admitted to our clinic with complaints of chest pain and dyspnea for six months. Chest computed tomography showed solid and fatty components of masses 21×7 and 5×7 cm with clear borders in the right thoracic cavity. The patient underwent a posterolateral thoracotomy in which the mass, arising from the anterior mediastinum, was resected. Histopathological examination showed that the mass was Type B1 thymoma, and the patient was presented in light of the literature.

Key Words: Lipofibroadenoma, Mediastinum, Thymoma

Özet

Tip B1 timoma (lipofibroadenoma) oldukça nadirdir. Tümör medüller farklılaşma ve perivasküler aralık ile lenfositten zengin organoid bir görünümle karakterizedir. Yirmi üç yaşında bir bayan olgu altı ay önce başlayan göğüs ağrısı ve nefes darlığı şikâyetleri ile kliniğimize başvurdu. Toraks bilgisayarlı tomografide sağ torasik kavitede düzgün kenarlı solid ve yağ dansiteleri içeren bir kitle (21×7, 5×7 cm) görüldü. Olguya uygulanan posterolateral torakotomide anterior mediastenden kaynaklanan bir kitle tespit edilip rezeke edildi. Histopatolojik inceleme Tip B1 timoma olarak bildirilen olgu literatür bilgileri ışığında sunuldu.

Anahtar Kelimeler: Lipofibroadenoma, Mediasten, Timoma

Introduction

Type B1 thymoma (lipofibroadenoma) is extremely rare. Type B 1 thymoma is characterized by an organoid appearance rich in lymphocytes with medullary differentiation and perivascular spaces. Microscopically, thymic lipofibroadenoma shows irregularly connected figurate strands of thymic epithelial cells in an abundant fibrous stroma containing scattered fat cells [1]. This report presents a case of rare thymic tumors histologically diagnosed as lipofibroadenoma.

Case Report

A twenty-three-year-old female patient was admitted to the authors' clinic with complaints of chest pain and dyspnea for six months. The symptoms had a gradual onset and had progressed with time. The patient had no familial history of cardiovascular diseases. There was no history of trauma, surgery, cigarette smoking, alcohol consumption, or exposure to radiation. On physical examination, breath sounds were decreased in the middle and basal zones of the right hemithorax. Neurologically, she was conscious and oriented. Complete blood count, renal and hepatic function tests were all within normal limits. An electrocardiogram showed normal sinus rhythm. Blood pressure was 120/70 mmHg.

An imaging study of the thorax showed a giant mass in the right hemithorax (Figure 1). A flexible bronchoscopy was performed on the patient, but the endobronchial lesion was not evident. A tru-cut biopsy of the masses was performed with computed tomographic guidance. The lesion was thought to be thymoma.

A right wide posterolateral thoracotomy followed. The pleural cavity was entered through the bed of the 5th rib. The mass was found to arise from the anterior mediastinum.

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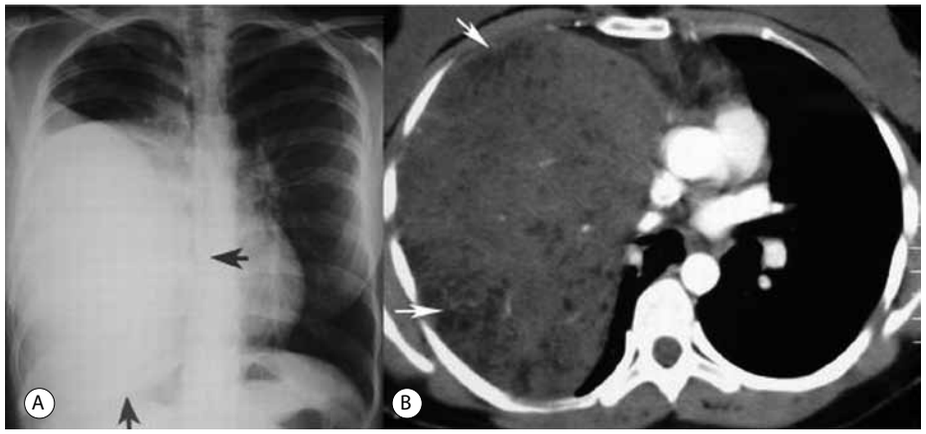

Figure 1. *A) Postero-anterior chest radiography shows large mass lesion in right hemithorax. B) Axial contrast-enhanced CT scan shows solid and fatty (white arrow) components of mass. Main vascular structures are compressed by the mass.*

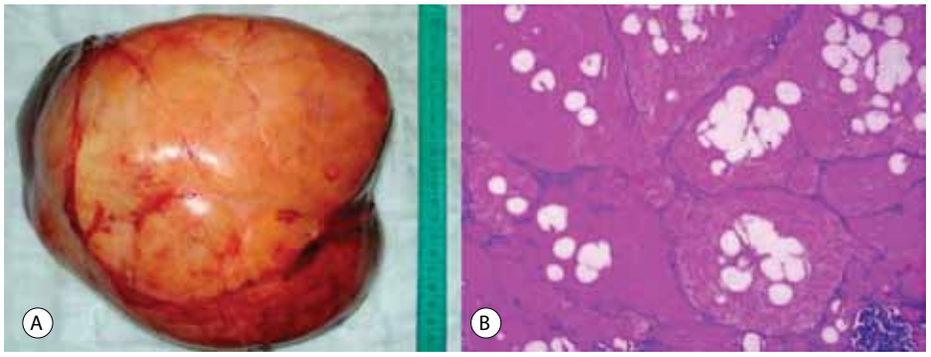

Figure 2. *A) Specimen 21x7.5x7 cm in size was a solid mass with an irregular shape weighing 2180 grams. The cut surface showed that the lesion was solid and fibrotic in appearance and that it had scattered areas of adipose tissue. B) There was no necrosis or hemorrhage. Microscopic examination showed an unusual composite tumor of a conventional type B1 thymoma and a lipofibroadenoma.*

Mediastinal fat tissue had been invaded by the tumor. A total resection of the mass was performed. Histopathological examination of the mass confirmed that it was a stage IIA lipofibroadenoma (Figure 2). There were no complications postoperatively. The patient was discharged on the 7th postoperative day. There was no recurrence in one year of postoperative follow-ups.

Discussion

This predominantly cortical thymoma is called Lipofibroadenoma, type B1 thymoma, lymphocyte-rich thymoma, lymphocytic thymoma, or organoid thymoma, Lipofibroadenoma is a very rare tumor. It represents 6% to 17% of all thymomas [2]. It is often associated with myasthenia gravis and rarely associated with hypogammaglobulinemia and pure red cell aplasia. It has equal incidence in males and females. The tumor usually occurs between the ages of 40 and 50 [2]. Very little has been reported in the literature about patients in the age range of this patient; additionally, she had no immunological disease.

Lipofibroadenoma commonly arises in the anterosuperior mediastinum. However, it has also been described in the neck, pleura, or lung. As in the current study, patients usually experience localized symptoms such as cough, dyspnea, and pain. It usually appears radiographically as a smooth-edged lesion [1-3].

Lipofibroadenoma has a low malignant potential. It rarely invades the pleura, pericardium, great vessels, or adjacent organs. Other distant metastases are extremely rare [4, 5]. In this case, there was invasion of mediastinal fat tissue.

In lipofibroadenoma, complete surgical resection is possible in nearly all cases with less than 10% recurrence. The 10-year survival rate is higher than 90% for stage 1 or 2. Staging is the most important prognostic factor. Age, gender, and other immunological diseases are not significant

prognostic factors [2, 6-10]. In the current case, there was no recurrence after one year of postoperative follow-up.

Lipofibroadenoma is an extremely rare type of thymoma. It can appear at a young age and can reach a large size. A surgical approach enables absolute histopathological diagnosis and treatment.

Conflict of interest statement: The authors declare that they have no conflict of interest to the publication of this article.

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