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Large Mediastinal Thymolipoma without Myasthenia Gravis: A Case Report

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Abstract
Thymolipoma is a rare benign mediastinal tumor, accounting for 9% of thymus tumors. It has a thymic and fat component. In half of the cases, it presents with symptoms of myasthenia gravis or immune disorders. Our case: A 21-year-old, clinically with complaints of fatigue and slightly difficult breathing, visited the cardiologist, who in native radiography suspected "increased heart shadow," which in CT thorax stood out as a medium tumor mass density, with dimension 7.5 x 15 x 8 cm large, corresponding to adipose tissue hyperplasia in the right anterolateral mediastinum. Complete excision with thymectomy was considered as the most adequate surgical treatment. The clinical condition of the patient after two months of clinical follow-up is good.

Keywords: thymolipoma, extirpation thoracotomy

Introduction

Thymolipoma is an encapsulated benign tumor commonly found in young adults. Thymolipomas are usually asymptomatic, so we find them in very large masses, when diagnosed. In 10% of cases, thymomas are mostly associated with autoimmune disorders such as myasthenia gravis, hypogammaglobulinemia and hypothyroidism.[1] They affect 2-9% of all thymus neoplasms and 1.1% of solid mediastinal tumors.[2] These tumors consist of the lipocytic component and thymic tissue.

Case Report

The patient is male, 21 years old, with mild breathing difficulties. On pulmonary X-ray appears with an 'enlarged heart

Shadow.' He consulted a cardiologist who described "increased heart shadow" on native chest radiograph (fig. 1). Cardiologically with normal cardiac function; Respiratory tests: slight degree restriction; FEV1: 3.31 (% Pred): 86.27; TA: 120/80 mm Hg; ECG sinus rhythm; without changes; Cardiac ultrasound: normal. Cardiologically: stable patient. Results of CT (fig.2) and Magnetic Resonance (fig 3) indicate a tumor formation in the superior antero-mediastinum with dimensions: 15 x 7 cm that responds to adipose tissue hyperplasia, to be verified histopathologically. No changes in pulmonary parenchyma. Bone structures without traumatic / destructive changes. Labora-

tories: Rbc: 4.59 x 10^{12} / L; Hb: 142 g / L; WBC: 10.8 x 10^{9} / L; Plt: 257 x 10^{9} /L; Bleeding time: 7'40 "; Coagulation time 2'20"; Pulse: 69 / min; Weight 70.9 kg; height: 164 cm; Operation time: 120 min: Biochemical analysis: Glycemia: 5.4 mmol / L; Urea: 3.63 mmol / L; Creatinine: 115 micromol / L; AST (SGOT) 28 U/L ; ALT (SGPT): 43 U/L;

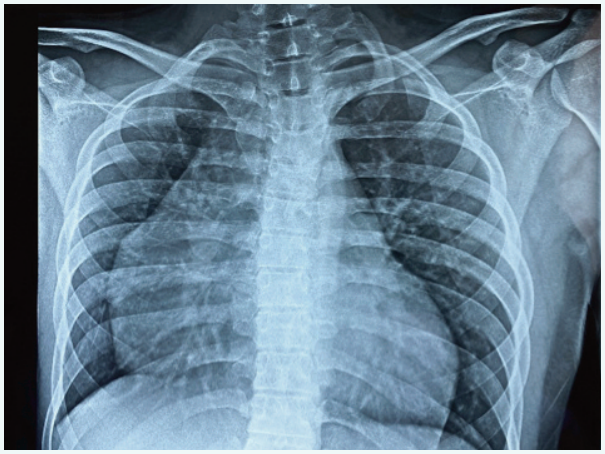

Fig 1. "Enlarged heart shadow"

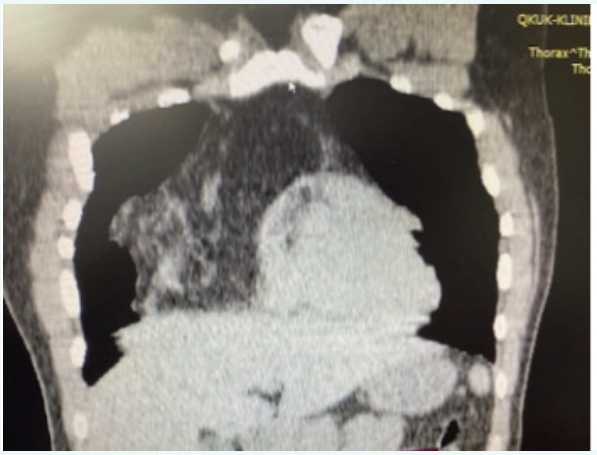

Fig 2. CT of tumour mass in the right mediastinum

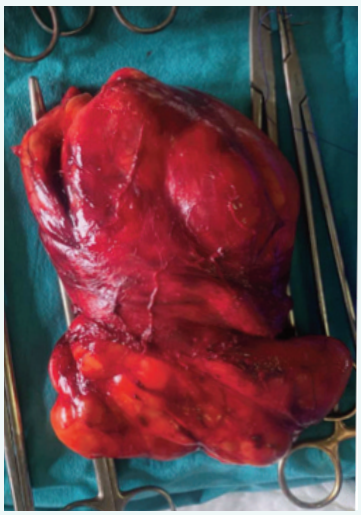

Fig 3 : Macroscopic preparatus of thymolipoma

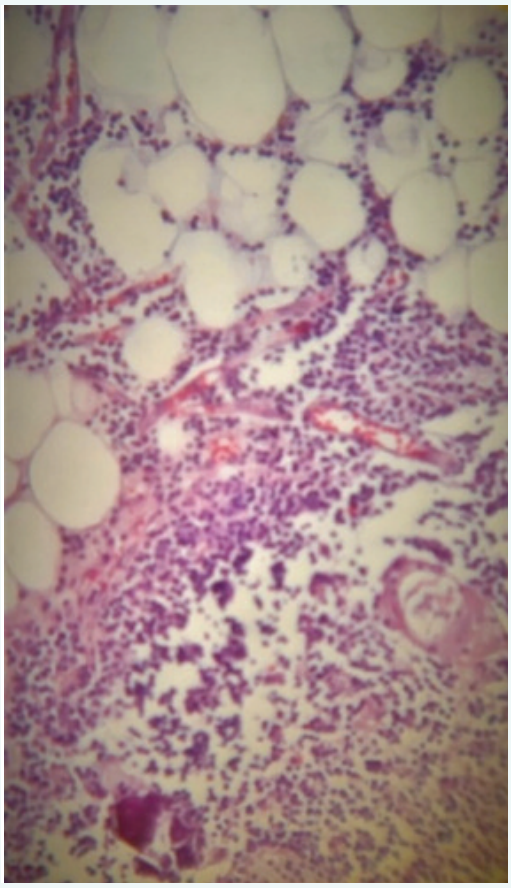

Fig 6. Hystopathologic preparatus where is seen cells of thymic tissue and lypocites

Right anterolateral thoracotomy is the chosen surgical therapy for this tumor removal.

Intraoperatively, a large encapsulated tumor mass is encountered (fig. 4) occupying the anterior mediastinal space of the right mediastinum, slightly compressing the left lung and mediastinal structures. The phrenic nerve was suppressed by the mass but preserved. Operation time: 120 min. Post operatively, there were no complications. Chest X ray (fig.5) shows good opening of the right lung with normal mediastinum. Weight of mass 1.4 kg. The histopathology report: nodular tissue mass measuring 16x11x5cm, encapsulated in the lobular incision, yellow in color, with scattered foci of yellow-gray color, medium-soft consistency. Microscopically (fig.6), with regular adipose tissue lobules separated by thin fibrotic septa, where blood capillary vessels and mixed areas of adipose tissue with foci of thymus tissue structure with lymphoid cells, Hasal bodies and foci of microcalcification are observed. Thymolipoma. There are no postoperative complications. At the 4-month follow-up the patient feels well.

Discussion

Thymolipomas present as slow-growing tumors that can take on large dimensions. They are usually asymptomatic, but the symptoms may be due to compression of the surrounding structures and include pain, coughing, or dyspnea.[3]

Regarding its pathogenesis the most accepted theory is the transformation of thymic hyperplasia to fatty tissue.[4]

Thymolipomas can be confused with the more common lesions like mediastinal teratomas, thymic hyperplasia, ectopic goitre and cardiomegaly on radiological investigation. They are seen as soft tissue densities containing fat with fibrous septae on thoracic CT. The differential diagnosis includes other lesions seen on thoracic CT as fatty tissue density such as lipoma, liposarcoma, teratoma, epicardial fat tissue, and diaphragmatic hernias.[5,6]

Thymolipomas usually grow slowly and attain enormous dimensions by the time of diagnosis. In our case, the tumor weighed 1.4 kg.

Thymolipomas are abundant in mature adipose tissue and thymic tissue remnants on histopathology. The fatty tissue consists of mature adipocytes with no atypical features. The thymic tissue component can vary from atrophic thymic epithelial components to the areas of large thymic parenchyma consisting of Hassall corpuscles. The differential diagnosis on histopathology includes lipoma, well-differentiated liposarcoma and thymic hyperplasia.[6]

Surgical resection is the treatment of choice, which can be accomplished via sternotomy, thoracotomy, clamshell incision or sternotomy accompanied by anterolateral thoracotomy (hemiclamshell incision) and offers the only possibility of cure.[4]

Conclusion

Thymolipoma is a rare thymic tumor, which can attain massive dimensions before manifestation. The large size of the tumor does not reflect inoperability. Complete excision with thymectomy is the curative surgery.

Conflict of Interest Disclosure Statement

The authors have no conflict of interest to disclose.

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