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Case Report

Giant Cellular Thymolipoma: A Case report

Niranjan J*[1], K V Santosh[1], Indira N[2], C J Prakash[1]
1. Dept. of Pathology 2. Dept. of Radiodiagnosis, Videhi Institute of Medical Sciences and Research Centre, Whitefield, Bangalore.

Abstract

Thymolipomas or thymolipomatous hamartomas are rare neoplasms accounting for 2-9 % of thymic tumors.[1] These tumors consists of mature adipose tissue with areas of normal thymic tissue. About 30-50% of them are asymptomatic and 10% are associated with Myasthenia gravis and other immune disorders. [2] This case is reported for its rarity.

Key-words: Thymic neoplasm, Mediastinum, thymolipoma

Introduction

Thymolipomas, also called lipoma of thymus or thymolipomatous hamartomas are rare well circumscribed tumors consisting of mature adipose tissue with areas of normal thymic tissue. They occur usually in young adults but can also occur at any age and generally show no sex predilection. Thymolipomas account s for 2-9 % of thymic tumors .[1] Around 30-50% of them are asymptomatic and 10% are associated with Myasthenia gravis and other Immune disorders.[2]

Case History

A 27 year old female presented to our out patient department with history of breathlessness on exertion and heaviness of chest since around 3 years. On examination the patient was poorly built and malnourished. On chest auscultation, breath sounds were reduced in both the lung fields. No abnormality was found on routine blood investigations. Chest X-ray revealed a large mass obscuring the cardiac borders and both domes of the diaphragm. CT (Fig 1) findings showed a huge fat dense retrosternal mass lesion arising from anterior mediastinum, extending into both thoracic cavity with craniocaudal extension from T6 to T12 vertebra resulting in displacement of lungs superiorly and encasing and compressing the cardia. The mass was seen extending posteriorly up to the spine and laterally up to lateral thoracic wall and there was evidence of fat stranding within the mass lesion. With these findings a diagnosis of mediastinal lipomatosis was made. A thoracotomy was performed and the tumor was completely excised and post operative management was uneventful. The patient recovered completely after surgery and her symptoms were relived.

*Corresponding Author
Dr. Niranjan J
Assistant Professor in Pathology,
Videhi Institute of Medical Sciences and Research Centre, Whitefield, Bangalore.
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Gross pathology

We received a large, lobulated and well circumscribed fatty mass weighing 4500gms, measuring 40x30x10 cm in its greatest dimension (Fig 2). Cut section showed yellowish appearance with focal grey white areas.

Microscopy

Lobules of mature adipocytes separated by fibrous septae were observed. The fibrous septae contained thymic elements made up of lymphoid and epithelial tissue with Hassall's corpuscles (Fig 3). At some places, epithelial cells were seen to form cord like structures (Fig 4). Few of the Hassall's corpuscles showed calcification and at one focus foreign body type of giant cells was seen.

Discussion

Thymolipomas are uncommon fat containing lesions formed by mature thymic and adipose tissue, accounting for 2-9% of thymic tumors. They are usually asymptomatic, but present with signs and symptoms of compression of adjacent struc-

tures, which is most often by the lungs and associated with symptoms of cough, breathlessness and dyspnoea.[1] No sex predilection is seen and it can occur at any age.[3] Around 30-50 % of these patients are asymptomatic and 10% are associated with Myasthenia gravis and other immune disorders like Grave's disease, aplastic anaemia and hypogamma globulinemia.[2] Our patient did not have any of these mentioned features. Thymolipomas are known to vary in size and the weight ranges from 50- 6000 gm.[3] Thymolipomas are considered as tumors rather than just hyperplasia of the fat as the thymic tissue is arranged in a disorderly manner and appear as lobulated well encapsulated masses with focal fibrous tissue dividing as seen in our case.[4] Large areas of mature adipocytes are separated by thymic tissue containing epithelial cells and lymphoidal cells. In this case the epithelial component was seen as cord like structures. Thymolipomas are benign and asymptomatic tumors and they can reach large sizes till they present with compression symptoms. As in one case the tumor was known to be present for 10 years and may originate in childhood.[5] Pathogenesis of thymolipoma is controversial and unclear with very few cytogenetic studies conducted. One study showed mutation in HMGA2 gene on chromosome 12q15.[6] Thymolipomas are diagnosed by imaging studies where radiologically they can mimic several conditions including cardiomegaly, pleural effusion, tumors, pulmonary sequestrations, pericardial tumors and effusions. Surgical resection is the treatment of choice .

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Fig 1. C T of thorax–A dense retrosternal mass displacing the lungs and compressing the cardia

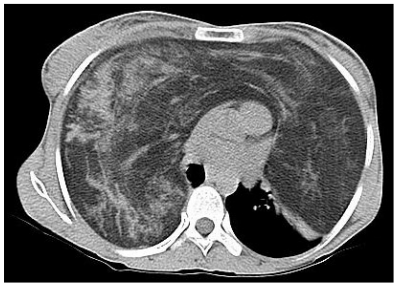

Fig 2. Gross Specimen–Large lobulated mass weighing 4500 gms.

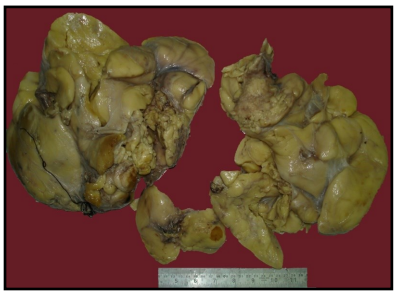

Fig 3. Microscopy–Hassall's corpuscles in the fibrous tissue.

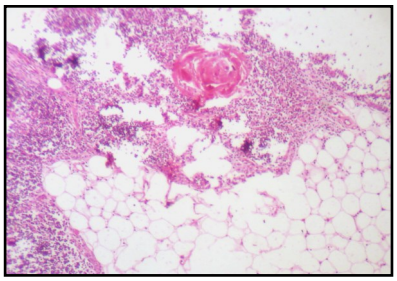

Fig 4. Microscopy–Cord like structures formed by epithelial cells.