Dokuz Eylül Üniversitesi
Tıp Fakültesi Dergisi
Cilt 4 Sayı 4 Aralık 1989

GIANT MEDIASTINAL MASS

AKKOÇLU, A., UÇAN, S., TELLİ, A.,SOYDAN,
S. İTİL, O.

ABSTRACT: Atilla AKKOÇLU, Sabri UÇAN, Ali TELLİ, Saliha SOYDAN, Oya İTİL, From the Department of Chest Diseases, Dokuz Eylül University Hospital Departments of Pathology and Cardiothorasic Surgery, Aegean University Hospital, İzmir, Turkey.

In the chest roentgenogram of a 17-year-old patient, a homogenous opacity filling the middle and lower zones of both lungs obliterating the cardiac and diaphragmatic borders was detected and the Computerized tomography of the chest showed a giant mediastinal mass. The histological diagnose of the mass which was resected at thoracotomy was thymolipoma.

The reason for presenting this case here is that our patient had a giant mediastinal mass and her chest roentgenogram was interesting.

Case report: A 17 year-old female patient presented with a one-month history of cough and dyspnea on exertion. The results of her physical examination were normal The chest roentgenogram revealed a lobulated homogenous opacity filling the middle and lower zones of both lungs obliterating the cardiac and diaphragmatic border. This opacity was irregular in contour in the right hemithorax (Fig 1). Other laboratory findings and the electrocardiogram were normal. Computerized tomography of the chest showed an anterior mediastinal mass beginning from the level of the carina and extending to the diaphragma, occupying the entire thorax at lower sections. The mass contained septations and its optical density was identified to be of fatty tissue (fig 2).

A median sternotomy revealed a yellowish green, lobulated mass surrounded by a thin, fibrous capsule and it contained bright white bands. The mass measured 40X25X10cm filling the entire right hemithorax extending to the left (fig 3,4). After the resection, the patient made an excellent recovery and was discharged 10 days after operation.

Doç.Dr.Atilla AKKOÇLU, Doç.Dr.E.Sabri UÇAN, Dr.Oya İTİL, Dokuz Eylül Üniv.Tıp Fak. Göğüs Hast.Anabilim Dalı. Prof.Dr.Ali TELLİ, Ege Üniv. Tıp Fak. Göğüs-Kalp-Damar Cerrahisi Anabilim Dalı, Prof.Dr.Saliha SOYDAN, Ege Üniv. Tıp Fak. Patoloji Anabilim Dalı.

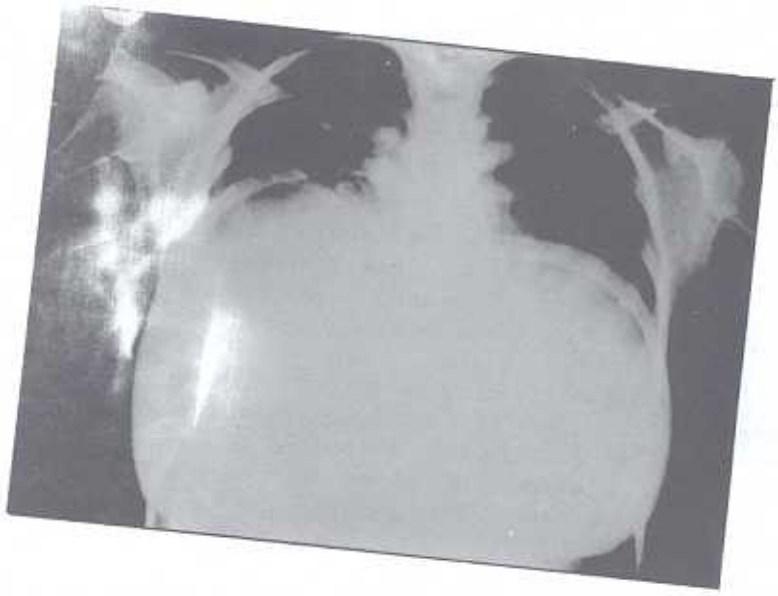

Fig 1. The chest roentgenogram of the patient.

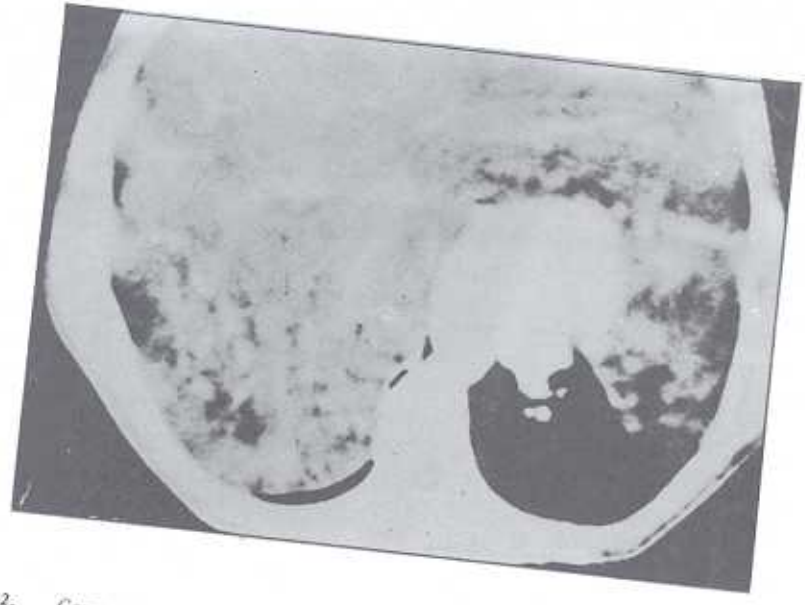

Fig 2. Computerized tomography of the chest which showed an anterior mediastinal mass and the mass contained septations.

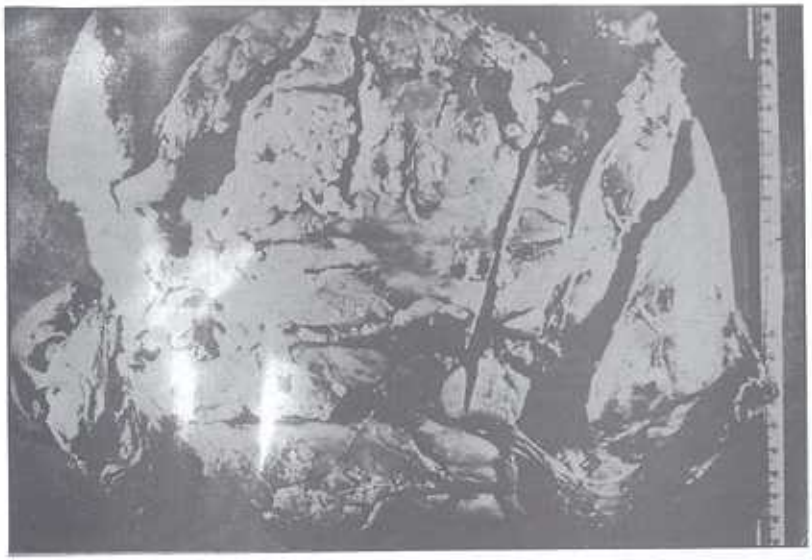

Fig 3. A Median sternotomy revealed a yellowish green, lobulated mass surrounded by a thin, fibrous capsule and it contained bright white bands.

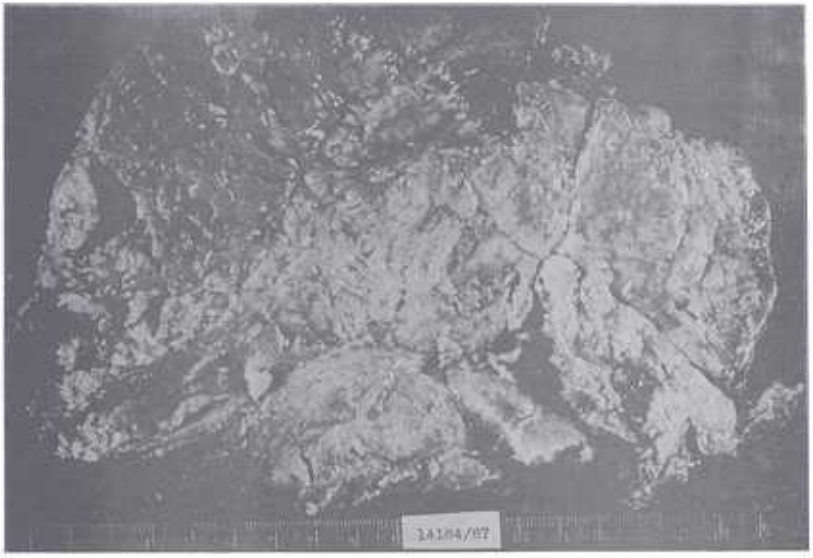

Fig 4. Section of the mass.

Histological, lobulated structures with various sizes formed by mature fatty tissue were observed. Between the lobules, bands including few Hassal corpuscles on small foci of thymic tissue areas were detected (fig 5). Histological diagnosis was Thymolipoma.

Fig 5. Histologically, lobulated structures formed by mature fatty tissue were observed and between the lobules, bands including few Hassal corpuscles on small foci of thymic tissue areas were detected (Hematoxilene eosin x40).

Discussion: Thymolipoma are benign tumors of the thymic adipose tissue. In all thymic tumors, they show an incidence of 29% 2. Unlike thymic tumors, systemic manifestations and relation with malignancies are not observed 2. The majority of these cases are asymptomatic. Thymolipomas are located in the lower part of the mediastinum and obliterate the cardiac and diaphragmatic borders.

Radiographically, they can simulate pericardial effusion, cardiomegaly, cystic lesions and sequestration 2,3,4. X-rays Bucky filters, angiocardiography, diagnostic pneumomediastinum and oesophagography have been used previously for differential diagnosis 5. At present, the finding of on optical density as that of fatty tissue is considered to be sufficient for preoperative diagnosis 6,7,8.

Histologically, among mature fatty tissue areas, hiperplastic or atrophic parts of the thymic tissue are located. They are the giant tumors of the mediastinum. Moigneteau has reported that 68% of the tumors are above 500 grams while 25% are above 2000 grams 9.

A posteroanterior chest roentgenogram of our case demostrated a giant mediastinal mass occupying 75% of the whole lung area and it was surprising that with this mass, the patient had a few symptoms and remained well. The softness of the fatty tissue, the location of the mass on the diaphragma and its taking the shape of the organs without causing pressure may be the explanatory factors. A diagnostic image was obtained by CT. The volume of the giant mass resected was observed to be $10dm^3$. Masses weighing up te 12 kilograms have been reported in the literature 1.

REFERENCES

1. Pare, PAJ. Fraser, RG.: Synopsis of diseases of the chest. Ist ed. Japan: WB Saunder Comp. 1983; 700.
2. Pillai, R. Yeok, N. Addis, B. et al.: Thymolipoma in association with Hodgkin's disease. J Thorac Cardiovasc surg 1985; 90: 306.
3. Pierson, DJ. Tumors and cystic of the mediastinum. In: Murray JF, Nadel AJ. Texbook of Respiratory Medicine. Ist ed. Phladelphia: WB Saunder Comp 1988; 1821.
4. Herrera, L. Oz, M. Lally, J. Davies, A.: Thymolipoma simulating pulmonary sequestration. J Pediatr Surg 1982; 17: 313.
5. Teplick, G. Neawich, A. Haskin, ME.: Roentgenographic features of thymolipoma. Am J Roentgen 1973; 117: 873.
6. Isherwood, I. Photiou, S. Donnelly, SJ.: Thymolipoma simulating cardiomegaly: Use of computed tomography in diagnosis. Thorax 1982; 37: 941.
7. Yeh, HC. Gordon, A. Kirschner, PA. Cohen, BA.: Computed tomography and sonography of thymolipoma. Am J Roentgenol 1983; 140: 1131.
8. Lillington, GA.: A diagnostic approach to chest diseases. 3rd ed. Baltimor: Williams and Wilkins 1987; 399.
9. Moigneteau, C. Cornet, E. Thymolipoma. J Chir 1964; 94: 509.