HUGE MEDIASTINAL THYMOMA: REPORT OF TWO CASES

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Thymomas are rarely seen tumors of the thymic tissue which are primarily located in the anterior mediastinum. Their course depends on the extent of treatment as well as the pathologic nature of the tumor. We present two cases of thymoma that were operated in our clinic. A literature review on the nature and treatment of the thymomas are given.

Key words: Thymoma, surgical treatment, myasthenia gravis

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Thymomas have been defined as the tumors derived from the epithelial cells of the thymus. They represent a diverse group of tumors with varied histologic findings and biological behavior. Thymomas are slow growing neoplasms that are considered to be malignant because of their potential invasiveness. Invasion beyond the capsule is a major prognostic factor that correlates with a poor outcome. Surgery is usually the treatment of choice in the management of the thymomas. We report a case of a tyhmoma that was seen as a large mediastinal tumor .

CASE 1

The patient was a 32 year old man. The patient had symptoms of angina and back pain. An abnormal shadow was seen in the mediastinum by chest radiography (Figure 1). Physical examination revealed diminished breath sounds on the right side. Blood tests revealed nothing abnormal. A diagnosis of thymoma with predominantly epithelial composition was made after the left ventricle examination of the cutaneous needle biopsy specimen.

Total resection of the tumor was accomplished through a median sternotomy. The tumor was shown to arise from the left lobe of the thymus and infiltrated the left pleura without affecting the pericardium. The tumor was exclusively resected. The tumor's diameters were 10x9x 7 cm and weighed 380g (Figure 2). Histological examination revealed a stage-I epithelial thymoma. After the operation the patient did well, and he remained free of disease 6 months after the operation.

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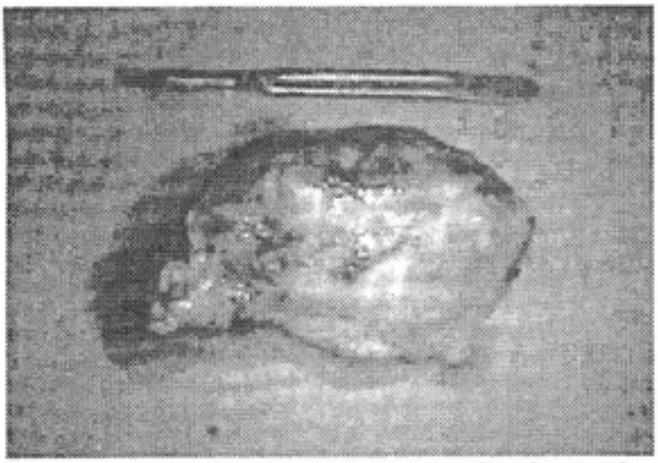

Fig 1: Abnormal shadow in the mediastinum by chest radiography

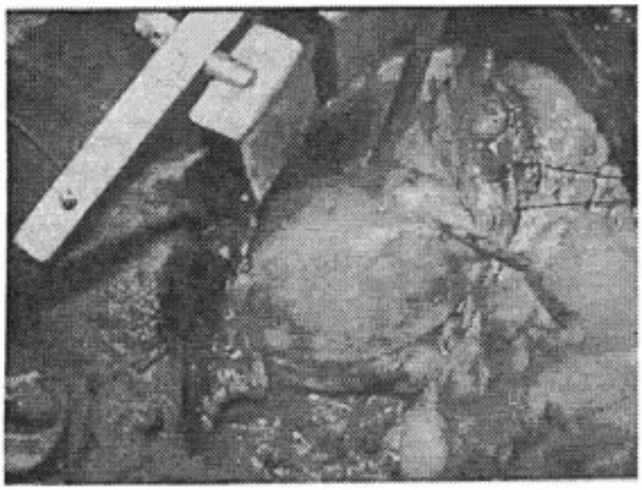

Fig 2: Operative view of the thymoma

CASE 2

The patient was a 57 years old woman. During the routine clinical work up for an operation for the gall bladder, a mediastinal mass was found and was localized well with computerized tomography and magnetic resonance imaging. In the 2-M transthoracic echocardiography, the 5.3 x 7.7 cm mass was found in close relation with the left ventricle anterolaterally. The left ventricular performance and diameters were otherwise normal. In the coronary angiography, coronary arteries were normal. In the left ventriculography, no mass was detected and the ventricle function was normal with normal mitral and aortic valves.

Total resection of the mediastinal mass was accomplished with a median sternotomy. The mass was localized in the superior portion of the anterior mediastinum. It was measured 10x8x6 cm intraoperatively. It was mobile, encapsulated, lobular and soft on palpation with its pedicle on the jugular side of the mediastinum. Patient was extubated early and had no bleeding postoperatively. At the pathologic examination a lymphocyte dominant thymoma was diagnosed. At her discharge, the patient had no signs or symptoms of myasthenia gravis.

DISCUSSION

Thymomas are the most common tumors of the anterosuperior mediastinum. In a large series of 283 patients with thymoma from the Mayo clinic, chest pain was the most common initial symptom (25%) and 40% of patients were first seen with tumor releated symptoms (1). The patient whose case is presented here had chest pain for 2 years. Thymomas show a great variation in size, with most between 5 and 10 cm (1). The largest thymoma recorded in the literature had dimensions of 38x28x26 cm and there was also a report of a huge thymoma that was discovered to be causing dyspnea, although it remained noninvasive (2). The first patient's tumor measured 10x9x7 cm while the other one's measured 10x8x6 cm at the time of the removal. The prognostic factors for thymoma are difficult to establish and remain controversial. There are various reasons for this ; these tumors are uncommon , they are clinically and anatomically polymorphic, they grow slowly, several histological classifications have been used, and the series published to date are all retrospective (1,3). Tumors recurred in 29% of completely resected thymomas (4). The stage of disease was the only independent factor affecting reccurrence(4). 65% of the causes of death were independent from the tumor's progress. Three prognostic factors were established in univariate analysis: Completeness of resection, Masaoka clinical stage ,and histological classification (3). Completeness of resection is the major survival prognostic factor (3). The clinical staging system described by Masaoka and coworkers reflects the highly variable malignant potential of these tumors and is considered by most authours as the major prognostic factor. Clinical staging must be supplemented by histological research. Regnard and coworkers demonstrated that the completeness of resection was the major survival prognostic factor (3).

The tumor was noninvasive at the time of the surgical procedure. When invasive, the tumor involved the pleura (78%), pericardium (45%), lung (30%), phrenic nevre (30%), or the superior vena caval system (27%) (3). In cases of invasive thymomas, some authors have found that subtotal resection allows a beter prognosis than biopsy alone (5). 5 year survival was found to be adversely affected only by invasion

of the innominate artery in a study (6).

Postoperative radiotherapy is usually recommended for invasive thymomas to reduce recurrence (5). A retrospective study involving 88 patients showed that postoperative radiotherapy is effective only with complete resection (7). Most diseases recurred well after the surgical resection, and long-term follow-up is necessary to study this problem. Patients with stage I disease require no furter therapy after complete surgical resection. Neoadjuvant therapy should be considered for patients with large tumors and invasive disase (4). In conclusion; the surgical resection should be performed whenever complete resection seems possible. Patients should be followed up for recurrence.

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