CASE REPORT
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A Case of Mediastinal Malignant Fibrous Histiocytoma

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Abstract
A 53-year-old male patient was operated because of mediastinal malignant fibrous histiocytoma. Rareness presentation of malignant fibrous histiocytoma in mediastinal primary tumor made its reporting worthwile.

Keywords: malignant fibrous histiocytoma, mediastinum, surgery

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INTRODUCTION

Malignant fibrous histiocytoma (MFH) is a tumor which mostly orginated from the soft tissues of the extremities and retroperitoneum, but very rarely originates from the mediastinum [1]. We report here in the case of a 53-year-old male who underwent surgical resection with brachiocephalic vein via midsternotomy.

CASE REPORT

A 53-year-old male patient was admitted with dyspnea and left sided chest pain. These symptoms were been approximately 3 months before the admission. Chest roentgenogram showed a mass shadow on the superior mediastinum (Figure 1a). Computerized tomography of the chest confirmed a tumor on the anterior mediastinum related to brachiocephalic vein (Figure 1b). We made needle aspiration biopsy to mass. The pathological examination of the biopsy material was consistent with malignant fibrous histiocytoma (Figure 2a, b). Systemic screening showed no other organ involvement, and the tumor was considered to be a primary mediastinal tumor. We decided to operation. Sternotomy was made. The mass was on the anterior mediastinum and has a width of 9cm and length of 5cm. It was above the brachicephalic vein which was invased by tumor. The mass was removed with involvement of the vein piece (about 4cm.) (Figure 1c) and mediastinal addipose tissue. Then vein was anastomosed with PTFE greft (Figure 1d). The patient was discharged at 5th day without complication. The patient had radiotherapy for one month (52Gy) and is at 44th month of follow-up without evidence of recurrence.

DISCUSSION

MFH is a mesenchymal tumor first recognized by O`Brien and Stouth in 1964. It is now considered to be the most common malignant soft tissue sarcoma of adults. Because of the ubiquitous nature of mesenchymal tissue, MFH could be seen in all organs. The most frequent location of MFH in soft tissues with a higher incidence are deep musculature of the extremities, retroperitoneum and trunk. The second most prevalent tissue for MFH is long bones and metaphyseal areas [2].

The histologic classification of this sarcoma dates back only about 20 years, and it is possible that this sarcomas previously diagnosed as fibrosarcomas, leiomyosarcomas, myxosarcomas or unclassified sarcomas would be called malignant fibrous histiocytomas today. Five

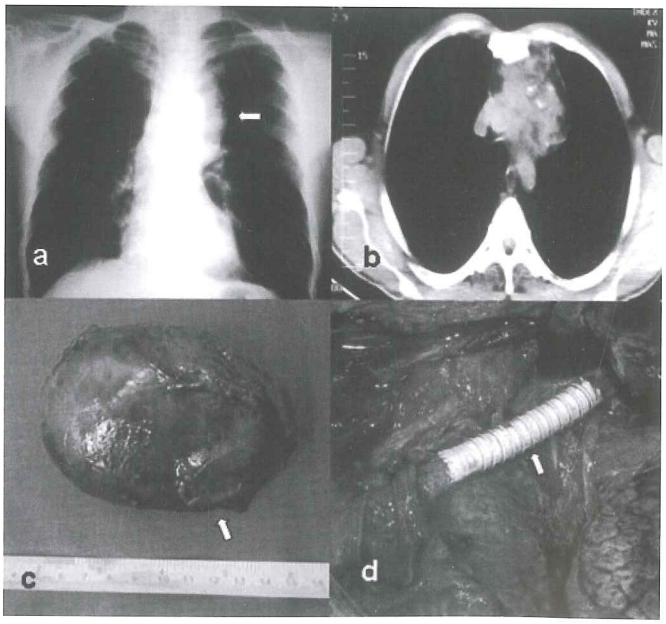

Figure 1. a. Chest roentgenogram showed a mass shadow on the superior mediastinum, **b.** Mass in CT, **c.** Mass with vein peace, **d.** Anostomized vein with PTFE greft.

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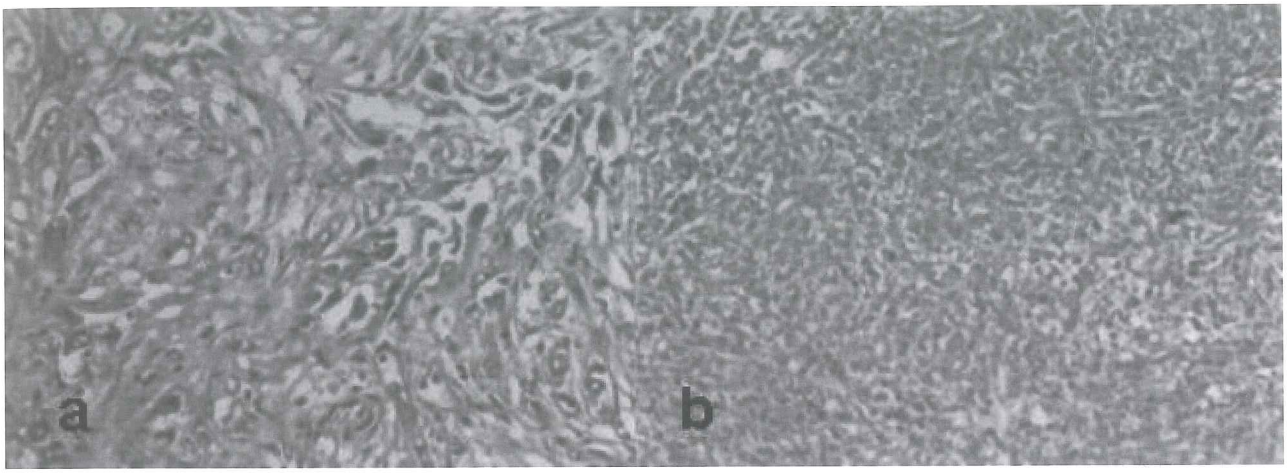

Figure 2. Pathological photographs of mass. **a.** with Hex200, **b.** with Vimentinx100.

histologic subtypes are described; storiform pleomorphic, myxoid, giant cell, inflammatory and angiomatoid [3]. Tumor type of our patient`s was storiform pleomorphic. Malignant fibrous histiocytoma rarely occurs as a primary mediastinal tumor. Few cases of primary MFHs have been recorded in the mediastinum. They are usualy reported as single case reports rather than as series [4, 5].

The choice of treatment is complete excision when possible. Postoperative radiation therapy may be of benefit on these patients because these tumors frequently recur after they have been excised, and they can metastasize to the lung and the lymph nodes [3]. In our case the mass was removed with invasing vein piece and mediastinal addipose tissue. After operation the patient had radiotherapy and is at 44^{th} month of follow-up without evidence of reccurrence.

MFH is a mesenchymal tumor which most commonly located in an extremity, retroperitoneum and trunk. It rarely occurs as a primary mediastinal tumor. So that we decide to report this case who had primary mediastinal MFH.

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