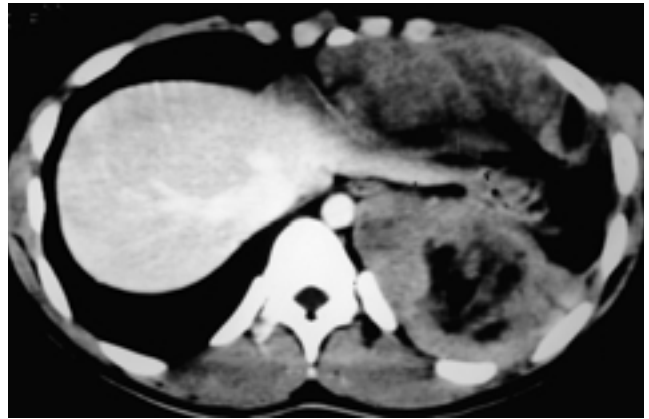
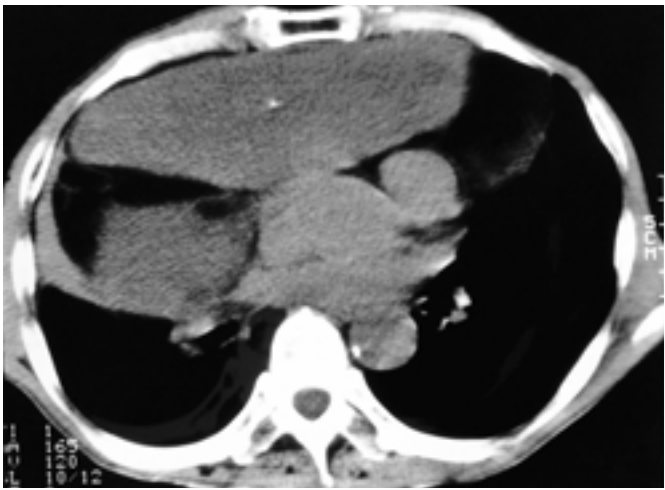


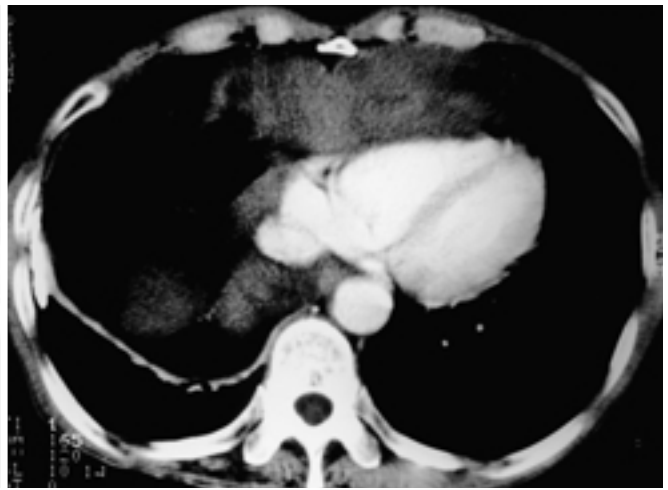
1  
2  
3  
4



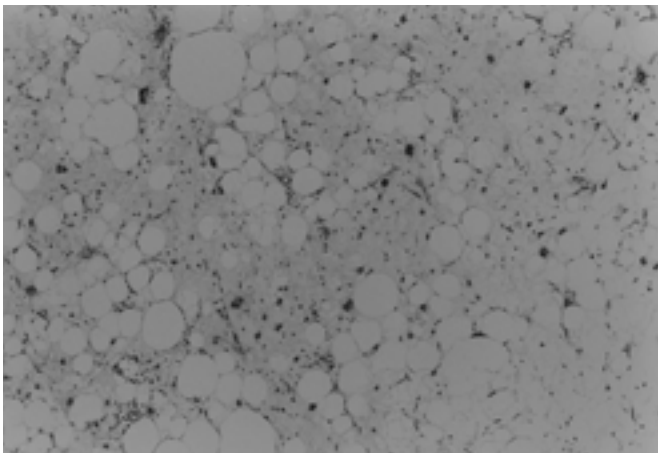
**Fig. 1.** Primary liposarcoma of mediastinum in 32-year-old man. Enhanced CT scan obtained at the level of the lung base shows a mass of fat and soft-tissue attenuation and left chest wall invasion.



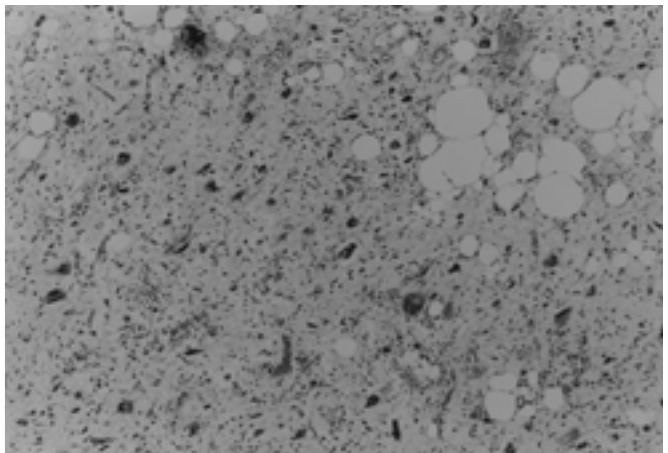
**A**



B



C



D

**Fig. 2.** Primary liposarcoma of mediastinum in 70-year-old man who had dyspnea and chest pain.

**A.** Pre-contrast CT scan obtained at the level of the right pulmonary artery shows a huge mass with various soft-tissue densities including fat attenuation and small calcification.

**B.** Contrast enhanced CT scan obtained at the level of the right atrium shows internal linear foci within the fat and soft-tissue attenuations. The heart and left lung were pressed and distorted by the large mass.

**C.** The histologic finding taken from abundant fat attenuation area shows a well-differentiated liposarcoma.

D. The histologic finding taken soft-tissue predominant area shows a pleomorphic liposarcoma with clustering of lipoblasts (H - E; original magnification,  $\times 40$ ).

CT, 가 30 H  
가  
가  
Enzinger (8) 2 가  
2  
10.5 cm 21 cm 14.9 cm  
12 cm 16 cm 14.5 cm  
가  
가 45 (18).  
가 5 cm  
2, 가  
가 2  
Burt (18) 가 (9).  
CT  
(15, 16). CT  
(MR)  
(Fig. 1). 가 35 H 37 H  
가  
(Fig. 2).  
- 2 H 10 H  
가  
(2). 가 (19).  
(25 - 30%) (20%)  
(10).  
40 60  
17  
7 가 (11 - 13).  
가  
(14 - 16). (14). 40%  
15% 4 가  
가 ( , ) 가  
가 ( , ) (17).  
가  
( - 70 - 130 H)  
( - 20 - 100 H)  
CT (+15 +25 H) (16).  
1. Sekine Y, Hamaguchi K, Miyahara Y, et al. Thymus-related li-  
posarcoma: report of a case and review of the literature. *Surg Today*  
1996;26:203-207

2. Schweitzer DL, Agaum AS. Primary liposarcoma of the mediastinum. Report of a case and review of the literature. *J Thorac Cardiovasc Surg* 1977;74:83-97
3. : 3 .  
1983;9:375-380
4. 1985;21:945-953
5. 1987;23:215-220
6. 1  
1989;22:1061-1069
7. -1 . 1996;29:125-128
8. Enzinger FM, Weiss SW. *Soft tissue tumors*. 2nd ed. St Louis: Mosby, 1988;346-382
9. Grewal RG, Prager K, Austin JH, Rotterdam H. Long term survival in non-encapsulated primary liposarcoma of the mediastinum. *Thorax* 1993;48:1276-1277
10. Kransdorf MJ, Moser RP Jr, Meis JM, Meyer CA. Fat-containing soft-tissue masses of the extremities. *RadioGraphics* 1991;11:81-106
11. Mikkilineni RS, Bhat S, Cheng AW, Prerosti LG. Liposarcoma of the posterior mediastinum in a child. *Chest* 1994;106:1288-1289
12. Ohhira U, Watanabe Y, Iwa T, Kitakawa M, Watanabe R. Liposarcoma of the mediastinum. Report of a case in a child and review of the literature (in japanese). *Jpn J pediatr Surg* 1975;12:659-662
13. Chiyo M, Fujisawa T, Yasukawa T, et al. Successful resection of a primary liposarcoma in the anterior mediastinum in a child: report of a case. *Surg Today* 2001;31:230-232
14. Plukker JT, Joosten HJ, Rensing JB, Van Haelst UJ. Primary liposarcoma of the mediastinum in a child. *J Surg Oncol* 1988;37:257-263
15. Munk PL, Lee MJ, Janzen DL, et al. Lipoma and liposarcoma: evaluation using CT and MR imaging. *AJR Am J Roentgenol* 1997;169:589-594
16. Grewal RG, Prager K, Austin JH, Rotterdam H. Long term survival in non-encapsulated primary liposarcoma of the mediastinum. *Thorax* 1993;48:1276-1277
17. Evans HL. Liposarcomas and atypical lipomatous tumors: a study of 66 cases followed for a minimum of 10 years. *Surg Pathol* 1988;1:41-54
18. Burt M, Ihde JK, Haudju SI, et al. Primary sarcomas of the mediastinum: results of therapy. *J Thorac Cardiovasc Surg* 1998;115:671-680
19. Fraser RS, Muller NL, Colman N, et al. *Fraser and Pare's diagnosis of disease of the chest*. 4th ed. Philadelphia, Saunders, 1999;2875-2937

## Primary Liposarcoma of the Mediastinum: Computed Tomographic (CT) Findings<sup>1</sup>

Chan Sung Kim, M.D., Ki-Nam Lee, M.D., Gyoo Sik Jung, M.D.<sup>2</sup>,  
Kun-il Kim, M.D.<sup>3</sup>, Mee Sook Rho, M.D.<sup>4</sup>

<sup>1</sup>Department of Diagnostic Radiology, College of Medicine, Dong-A University

<sup>2</sup>Department of Diagnostic Radiology, Kosin University School of Medicine

<sup>3</sup>Department of Diagnostic Radiology, College of Medicine, Pusan National University

<sup>4</sup>Department of Pathology, College of Medicine, Dong-A University

**Purpose:** To describe the CT findings of primary liposarcoma of the mediastinum, and to correlate these with the pathologic findings.

**Materials and Methods:** We retrospectively reviewed the medical records, chest radiographs and CT scans of four male patients with histopathologically proven primary liposarcoma of the mediastinum treated between September 1996 and April 2002. The CT scans were analyzed by two radiologists, and final decisions were reached by consensus. They were analysed in terms of tumor size and location, enhancement pattern, the pattern of the fat component, calcification, mass effect, pleural effusion, lymph node enlargement, pericardial effusion, tumor extension to the costophrenic junction, and adjacent organ invasion.

**Results:** All patients presented with dyspnea and chest pain. Pathologic subtypes, which were well-differentiated and pleomorphic, were myxoid ( $n=2$ ) and mixed ( $n=2$ ). The transverse diameter of the mass ranged from 10.5 to 21 cm. All tumors were located in the anterior mediastinum, and all had lobulated margins. Soft-tissue attenuation predominance ( $n=2$ ) occurred in the myxoid type, and roughly equal amounts of fat and soft-tissue attenuation ( $n=2$ ) were present in the mixed type. A small area of calcification was seen in the mixed type ( $n=1$ ). Mass effect on mediastinal structures was demonstrated in all patients. In three patients, the tumor draped around and conformed to the shape of the costophrenic junction. Chest wall invasion occurred in one patient.

**Conclusion:** Findings of an anterior mediastinal location, fat attenuation, mass effect, the invasion of adjacent organs, and a lobulated margin strongly suggested mediastinal liposarcoma. CT attenuation of the lesions correlated closely with the degree of histologic differentiation.

**Index words :** Mediastinal neoplasms, CT  
Liposarcoma, mediastinum

Address reprint requests to : Ki-Nam Lee, M.D., Department of Diagnostic Radiology, Dong-A University Hospital,  
1, 3-ga, Dongdaesin-dong, Seo-gu, Pusan 602-103, Korea.  
Tel. 82-51-240-5375 Fax. 82-51-253-4931 E-mail: kinamlee@chollian.net