Venous hemangioma of the mediastinum

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Abstract Medistinal hemangiomas are rare tumors. We present a case of venous hemangioma of the mediastinum. Computed tomography shows anterior mediastinal solid mass without enhancement effects. We believe that it is necessary to include a mediastinal hemangioma for differential diagnosis, when little or no enhancement effects are noted at early and delayed CT examination.

Key words Computed tomography · MR image · Venous hemangioma · Mediastinum

Introduction
Benign hemangiomas of the mediastinum are rare tumors, with an incidence of 0.5% or less among mediastinal masses. The tumors are categorized as capillary, cavernous, or venous hemangiomas, according to the size of their vascular space. Ninety percent of these tumors are cavernous or capillary hemangiomas. We report on CT and MRI findings in a 19-year-old woman with a surgically proven venous hemangioma of the mediastinum.

Case report
A 19-year-old woman who had been in good health was found to have an abnormal shadow on a chest radiograph taken at a routine check-up examination. Upon admission at our hospital to evaluate the mass lesion, she was in good general condition. The results of the physical examination and laboratory data were normal. A postero-anterior (PA) view of the chest X-ray showed a mediastinal mass without phleboliths on the left side of the antero-superior mediastinum. On the lateral view of the chest X-ray, radiolucency of the poststernal space was reduced due to the mass lesion. A CT scan of the chest demonstrated a left-sided anterior mediastinal mass. The mass, approximately 3.3 × 3 cm, was depicted as an area of soft tissue density without calcifications and a low-density area which was thought to represent fatty tissues (Fig.1a–c). On MRI, T1-weighted images demonstrated an iso-intensity mass that was relatively hypointense to the skeletal muscle (Fig.1d). On T2-
Fig. 1  a Unenhanced CT scans of the chest demonstrates an anterior mediastinal mass in contact with the aortic arch and the left brachiocephalic vein.  
b Early and  c delayed enhancement CT (30 and 270 s after i.v.) show neither enhancement of the mass nor invasion into the aorta.  
d On MRI, T1-weighted image (TR/TE = 600/15 ms) shows an iso-intensity mass relatively hypointense to the skeletal muscle.  
e T2-weighted image (TR/TE = 3700/75 ms) shows heterogeneous mass, with a signal intensity that is slightly greater than that of the muscles. But part of this lesion had a high-intensity area. No infiltration into the aortic arch or the left brachiocephalic vein was detected, but infiltration to a mediastinal fat layer was suspected. The septum and lobulation are not recognized on T2-weighted image.  
f On a T1-weighted image (TR/TE = 842/15 ms) after a gadolinium injection, the mass exhibited inhomogeneous enhancement.