

Primary Intravascular Lipoma of the Superior Vena Cava

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To the Editor,

Lipomatous tumors of the heart and major central veins are considered to be unusual pathological findings. Primary venous tumors are unusual in any location and the walls of the veins are rarely the site of origin of a neoplasm. In this case, we report an unusual mass arising from the superior vena cava (SVC), later pathologically described as lipoma.

A 48-year-old man, who had nasopharyngeal carcinoma 4 years previously, was admitted to our clinic. He had swelling of the right upper extremity and numbness in his arms. A Duplex ultrasonography showed no evidence of deep venous thrombosis in the right arm. A contrast-enhanced computerized tomography (SOMATOM Sensation, Siemens Medical Solutions, Erlangen, Germany) showed a lesion of fat density within the SVC (Figure 1a). On further examination using contrast-enhanced magnetic resonance venography (MAGNETOM Symphony, Siemens, Erlangen, Germany), an intraluminal mass was found, which markedly enlarged the lumen

of the SVC, partially allowing contrast leakage along the sides of the tumor (Figure 1b). Because of the symptoms, he was taken into surgery. Written and signed informed consent were acquired from the patient for the surgery and for the visual material to be published. Through the mini-J sternotomy, the SVC was explored and by performing a venotomy a 5 x 2 cm capsulated mass arising from the lumen of the SVC was removed (Figure 1c). The pathological specimen was further reported as lipoma. The patient was discharged from the hospital without any problem on post-operative day 5 with 100 mg of acetyl salicylic acid treatment. One week after discharge, he was rehospitalized with dyspnea, diagnosed with pulmonary embolism and received medical treatment. He is still under the supervision of our clinic with complaints resolved and no other complications.

Although lipomas are the most common soft tissue tumors, such a case of a primary intraluminal lipoma arising directly from the SVC is extremely rare. Lipomas can occur at any location of the body, particularly in subcutaneous tissues of

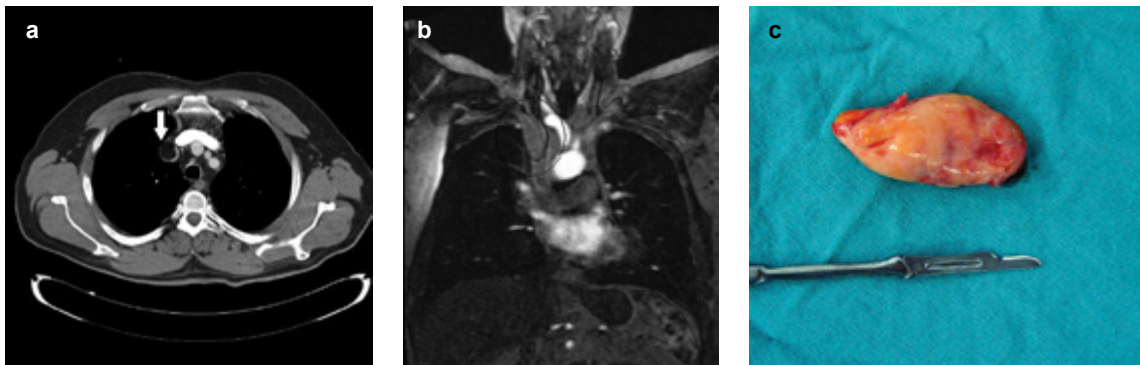


FIG. 1. a-c. Contrast-enhanced computerized tomography showing a lesion of fat density within the superior vena cava (arrow) (a), intraluminal mass (in circle), which markedly enlarged the lumen of the superior vena cava, in contrast-enhanced magnetic resonance venography (b), perioperative view of the excised tumoral mass (c)

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the upper half of the body and proximal arteries (1). Intravascular lipomas may be asymptomatic, incidentally revealed by imaging, or they may cause a venous obstruction or mediastinal syndromes by virtue of an excessive size causing compressive effects. This reflects the benign nature, the slow growth of the tumor and the compressibility of lipomas in general (2). We believe that symptomatic patients should be operated on. If the Duplex scan of the venous system shows no major findings in the case of swelling of an extremity, any mass arising from the lumen of the vein or compression from the surrounding masses should be taken into consideration by the clinician.

Ethics Committee Approval: N/A.

Informed Consent: The patient's written informed consent was taken for both approval of the surgery and further scientific presentation of any clinical and radiological images of the patient.

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