

Cardiac metastasis of synovial sarcoma presenting with superior vena cava syndrome

Intracardiac malignancies are most commonly metastatic cardiac tumors, and they are 20–40 times more common than the primary cardiac malignancies. Synovial sarcoma, an uncommon

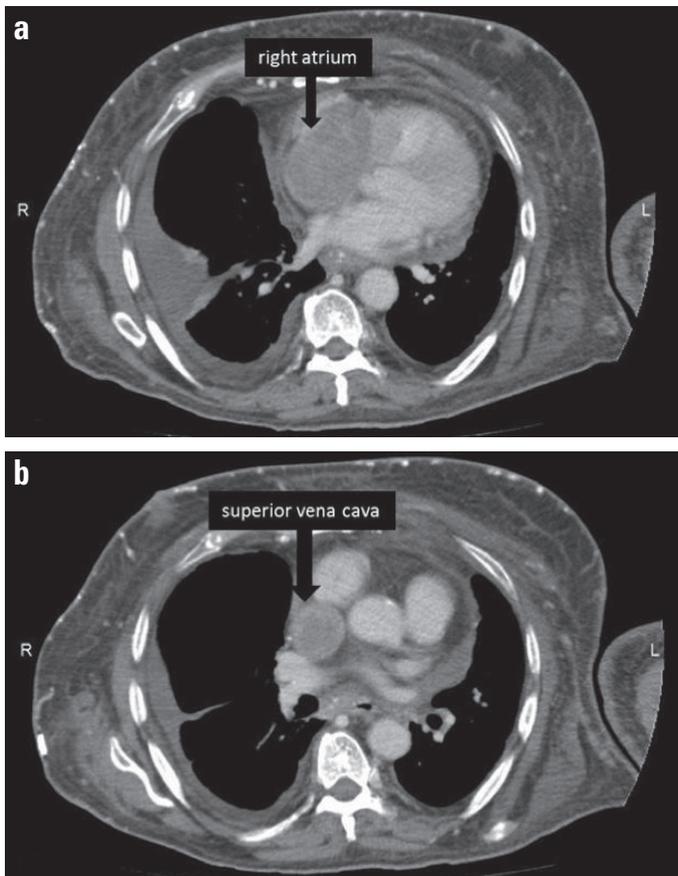


Figure 1. Thorax CT showing (a) right atrial and (b) superior vena cava, almost completely obliterated by metastatic mass

mesenchymal tumor itself, commonly spreads to the lung, but very rarely to the heart in the literature. Superior vena cava syndrome (SVCS) occurs because of the obstruction of blood flow in superior vena cava, mostly because of malignancies and needs urgent relief. Our case was a formerly diagnosed lung metastatic synovial sarcoma, presenting with right heart failure symptoms and SVCS.

He was a 61-year-old male patient presenting with recent onset of whole body swelling and dyspnea. At admission, he had upper and lower extremity edema, neck swelling with prominent jugular veins, and ascites. His echocardiographic evaluation revealed an 8x4 cm mass almost completely filling the right atrium, coming from the superior vena cava and extending across the tricuspid valve through the right ventricle in each diastole, causing an inflow obstruction with a mean gradient of 9 mm Hg (Video 1). Considering the clinical scenario, the mass was believed to be a metastatic synovial sarcoma. His thorax computerized tomography (CT) reported intracardiac mass nearly obliterating the whole right atrium and superior vena cava (Fig. 1a, b). It was extending till the right jugular vein and left brachiocephalic vein. After palliative radiotherapy, palliative surgical resection was done and a giant mass invading from superior vena cava till right ventricle was excised (Fig. 2a). The pathological examination revealed biphasic synovial sarcoma (Fig. 2b, c). Patient died 3 weeks after the surgery because of postoperative complications.

Video 1. Echocardiographic view of the right atrial mass protruding through the right ventricle in each diastol.

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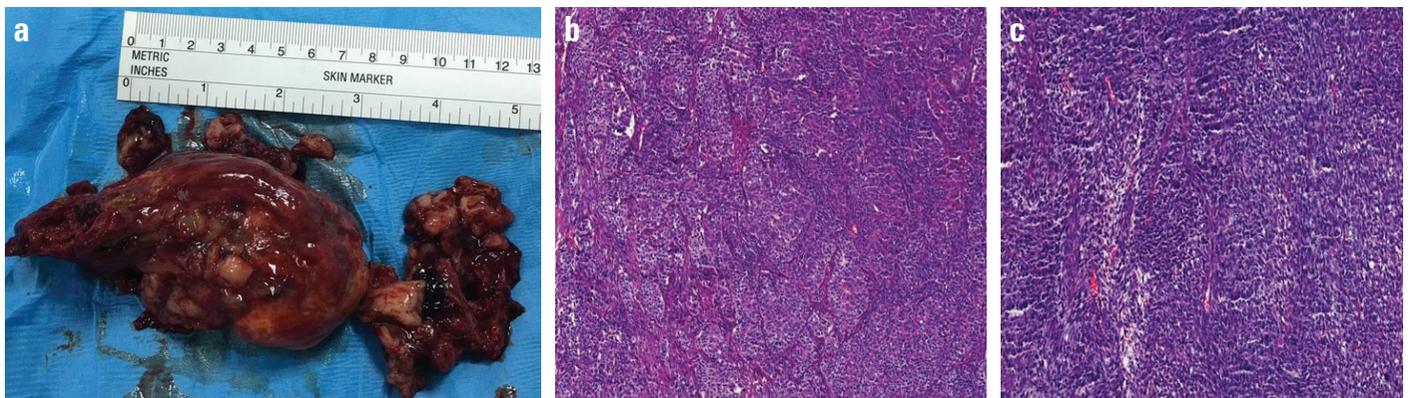


Figure 2. (a) Surgical material of the intracardiac metastasis of synovial sarcoma. Microscopically, the tumor was composed of biphasic morphology with the coexistence of epithelial (b) and spindle cells (c)