

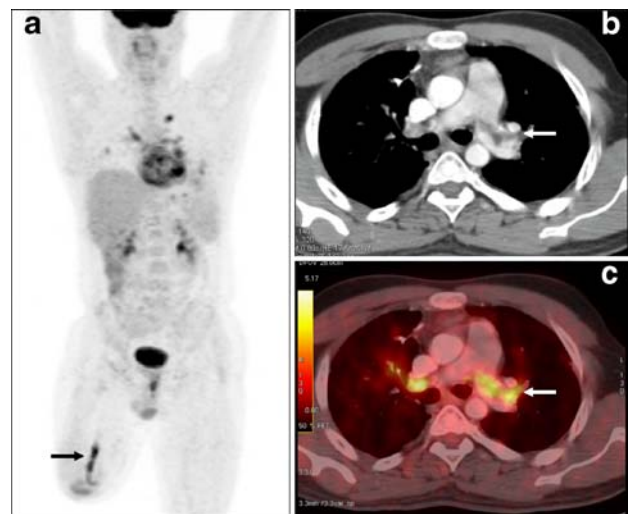
## Pulmonary artery and femoral vein tumour thromboembolism in a patient with osteogenic sarcoma demonstrated by FDG PET/CT

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FDG PET/CT is frequently used in staging and restaging of sarcomas. A 35-year-old man who had undergone an above-the-knee amputation for an osteosarcoma of the right tibia presented with localized swelling and progressive dyspnoea while on follow up. The MIP image (a) from a restaging PET/CT study revealed linear tracer uptake (arrow) in the right thigh along with hypermetabolic branching foci in the chest. A contrast-enhanced CT scan of the chest (b) revealed nonocclusive branching intraluminal filling defects (arrow) in both pulmonary arteries. The fusion PET/CT image (c) showed moderate to high-grade FDG uptake (SUV 7.8) corresponding to the linear filling defects in the pulmonary arteries (arrow) suggesting the diagnosis of pulmonary tumour emboli. The linear uptake in the thigh was confirmed by ultrasonography as a deep femoral vein thrombus.

Metastases and infection are frequent causes of respiratory symptoms in patients with osteosarcoma. Rarely the tumour cells can permeate the major veins and give rise to pulmonary tumour emboli [1]. The diagnosis is then unsuspected as the symptoms are nonspecific [2]. Pulmonary artery filling defects showing significant tracer uptake on fusion images in such a patient serve as indirect evidence for tumour embolism, proof of which is obtained from embolectomy [3] or autopsy [4] specimens. We



demonstrate the characteristic FDG PET/CT findings of pulmonary artery and femoral vein tumour thrombi, a rare consequence of osteosarcoma, not previously described on FDG PET/CT imaging.

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