

Soft tissue mass of the calf as the presenting symptom of primary carcinoma of the lung

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DESCRIPTION

A 79-year-old man with a history of ischaemic stroke reported of progressive swelling and pain in the right calf for 1 month. He also had haemoptysis and weight loss for a few weeks. He denied any fever or poor appetite. Physical examination found a firm, tender mass over his calf (**figure 1**), left buttock and back. Positron emission tomography CT (PET-CT) scan showed a large, hypermetabolic necrotic mass at the right lung middle lobe with infiltration of the adjacent right upper and lower lobes (**figure 2**). Multiple hypermetabolic necrotic



Figure 1 Soft tissue mass of the right calf (arrow).

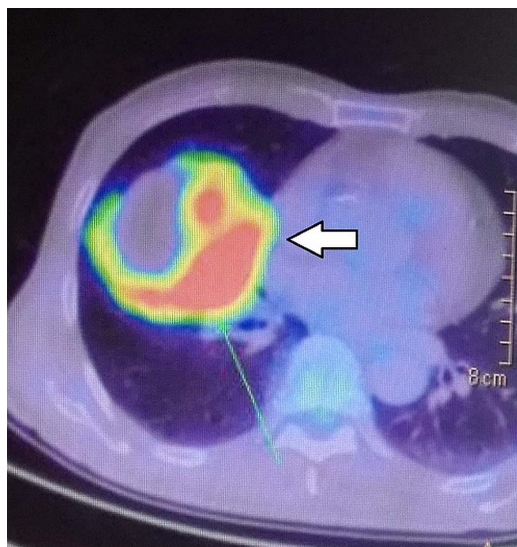


Figure 2 Positron emission tomography CT scan shows a hypermetabolic lesion located in the right lung middle lobe with infiltration of the adjacent right upper and lower lobes (arrow), measuring about 7.50×7.37×5.43 cm. SUV max=12.5. SUV, standardised uptake values.

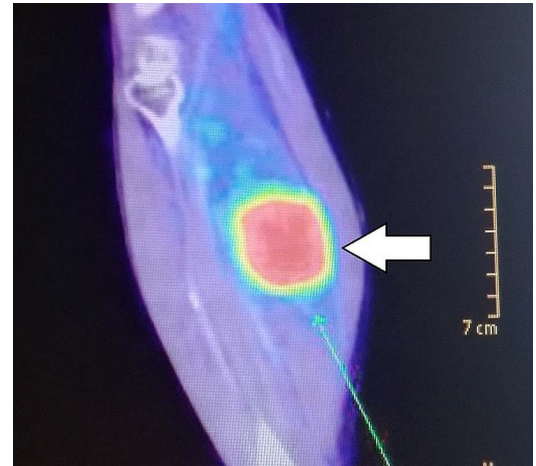


Figure 3 Positron emission tomography CT scan shows a hypermetabolic lesion located in the right calf (arrow), measuring about 4.04×3.84×3.96 cm. SUV max=12.8. SUV, standardised uptake values.

soft tissue masses were found in the right calf muscle (**figure 3**), posterior paraspinal muscles and bilateral thigh muscles (**figure 4**), which were suggestive of soft tissue metastases. Bronchoscopy and biopsy of the lung tumour revealed non-small cell carcinoma. Biopsy of the right calf mass showed histological features similar to those of the lung tumour biopsy. The patient was referral to oncology for further management.

Soft tissue mass of the calf as the presenting symptom of primary carcinoma of the lung is rare.



Figure 4 Positron emission tomography CT scan shows a hypermetabolic lesion located in the left thigh (arrow), measuring about 4.05×3.50×5.29 cm. SUV max=12.2. SUV, standardised uptake values.



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Learning points

- ▶ Soft tissue mass of the calf as the presenting symptom of primary carcinoma of the lung is rare.
- ▶ Common sites of metastases in primary carcinoma of the lung include the brain, adrenal gland, liver, abdominal lymph nodes, bone and kidney. Soft tissue metastasis is uncommon.
- ▶ Soft tissue metastasis is a sign of advanced disease and a grave prognostic factor.

Common sites of metastases in primary carcinoma of the lung include the brain (15–43%), adrenal glands (18–38%), liver (33–40%), abdominal lymph nodes (29%), bone (19–33%)

and kidney (16–23%). Soft tissue metastasis is uncommon (0.75–9%).¹ It is a sign of advanced disease and a grave prognostic factor.² PET-CT scan is very helpful in making prompt diagnosis.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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