

PET-CT CASE OF THE MONTH

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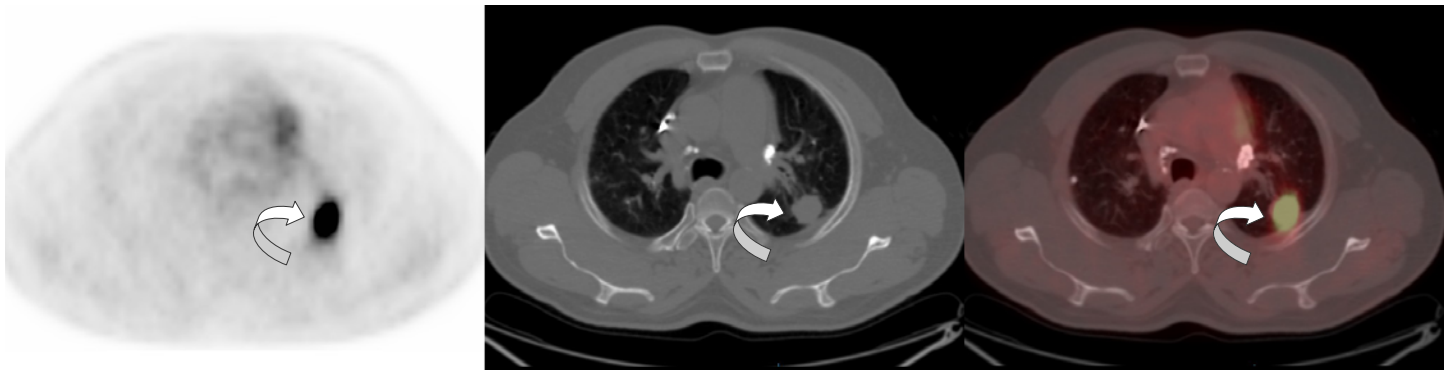


Fig. 1

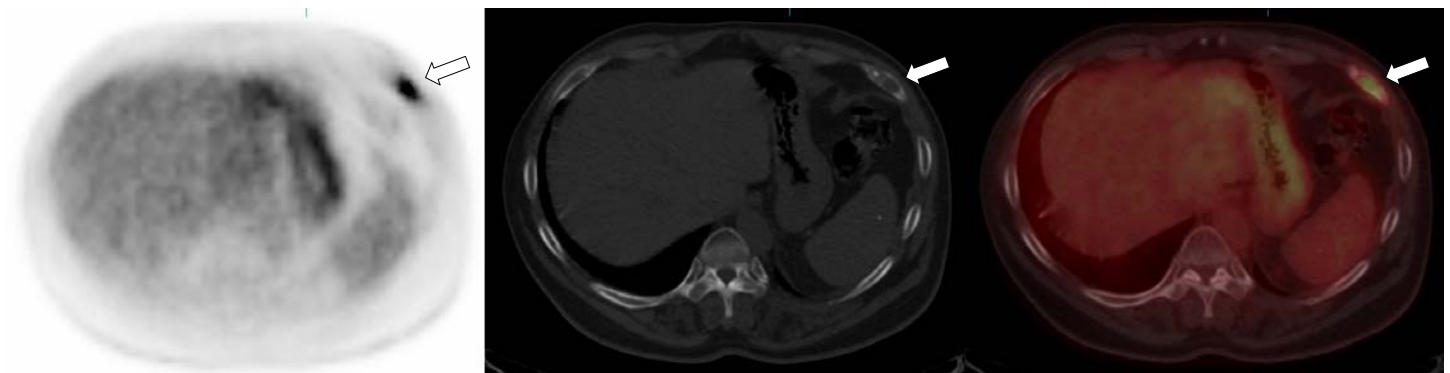


Fig. 2

This 65 year old man presented with a lung mass found on a routine chest x-ray and follow-up chest CT. A transbronchial biopsy was performed, revealing a moderately-to-poorly differentiated **lung adenocarcinoma**. A staging PET-CT was performed, which showed abnormal increased FDG uptake in the lung mass (curved arrows, Fig. 1) and in an anterior left lower rib end (arrows, Fig. 2). The site of rib end uptake corresponded to a small, subtle, slightly expansile lytic lesion on the CT images. A biopsy of the rib end was performed and confirmed the presence of a metastasis. Because of the proven stage IV disease, the patient received radiotherapy for the lung and rib lesions.

How did the PET-CT help? :

The PET-CT scan identified the unsuspected rib end metastasis, which was difficult to see on a prior CT study performed within the previous two weeks. PET and PET-CT, when used after conventional staging, have been shown to prevent futile lung surgery in an additional 20% of patients with non-small cell lung cancer^{1,2}.

(1) Cancer 2007;110:2155-68

(2) Lancet 2002;359:1388-92

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This case and previous ones can
be seen at www.petcases.com