

# P.E.T. CASE OF THE MONTH

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3D PET

This 77 year old woman presented with an enlarged lymph node in the right side of her neck. A core needle biopsy was performed. Pathology revealed undifferentiated small cell carcinoma. A chest/abdomen/pelvic CT with contrast was obtained (not shown). A right apical mass was identified as well as extensive mediastinal adenopathy. No abnormalities were noted in the abdomen or pelvis.

A PET scan was obtained which showed findings consistent with a malignant process involving the right supraclavicular region, the lower neck anteriorly, and the mediastinum. In addition, bone metastases were identified in the cervical spine, in one of the lower ribs on the left, and in the proximal aspect of the left femur (Fig. 1, black arrow).

An MRI of the left femur showed a focal lesion in the central medullary cavity of the proximal femur on the left (Fig. 2, white arrow) confirming the presence of metastatic bone disease.

**How did the PET help:** The PET scan upstaged the patient from limited disease to extensive disease. This resulted in a change in treatment planning from chemotherapy plus radiation to chemotherapy alone.

In a recent study involving 42 patients with small cell lung cancer, PET had a major impact on the management and the stage in 29% of the patients (1).

(1) J Nucl Med 2003;44:1911-1917



Left femur MRI

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This case and previous ones can be seen at  
[www.petcases.com](http://www.petcases.com)