

Cancer recurrence

By Jennifer Armstrong, MD *Department of Hematology/Oncology*



A 77-year-old woman was referred to me after a chest

X-ray revealed an abnormality. She had undergone treatment for uterine cancer four years earlier, and I was concerned her previous cancer had spread. However, a new, primary lung cancer, could not be ruled out. I ordered a chest CT (*figure 1*) and confirmed a large mass in the right upper lobe of the patient's lung.

If this cancer were a primary lung cancer, restricted to the chest, I would likely have recommended surgical evaluation for resection. Thus it was critical to determine if this was a single lesion.

Whenever new masses arise in patients previously treated for cancer, it is essential that the cancer team perform a careful and thorough evaluation to determine the nature of these lesions. What may appear initially as a new cancer may, in fact, be a metastatic condition.

In this case, the patient's blood tumor markers, bone scan and MRI of the brain were normal. A follow-up PET/CT study (*figure 2*) revealed an area of significantly enhanced metabolic activity in the patient's liver (as well as in the chest nodes). The PET scan in the liver drew attention to an otherwise occult liver metastasis. Without the PET scan, the liver lesion would have gone undetected.

Biopsies of the thoracic and liver lesions indicated these masses were metastases of the patient's earlier uterine cancer. Given this information, we were able to tailor our treatment plan appropriately. The patient was spared surgery and radiation therapy. She elected to receive palliative chemotherapy and is currently doing well.

image review

Procedure:

Skull-thigh PET/CT and contrast thoracic CT

After administering fluorodeoxyglucose to the patient, PET/CT was performed on a high-resolution, 16-slice, helical scanner. Abnormal uptake was seen in the large right upper lobe mass and right paratracheal lymph nodes. An additional focus of abnormal uptake noted in the liver was highly suggestive of metastatic disease.

Helical CT of the chest, abdomen, and pelvis was performed, following the oral and intravenous administration of contrast material. There is a large (8.0 cm) mass in the right upper lobe and an enlarged (2.0 cm) right paratracheal lymph node. A 1.7 cm mass in the right lobe of the liver was extremely subtle on the CT images. However, the marked uptake on the PET scan focused our attention on this area, and we were indeed able to confirm a metastatic lesion in this location.

By Robert Pinsk, MD
Department of Radiology

(Study performed/read at Paoli Hospital.)



Figure 1: The CT scan without contrast confirmed the presence of a large mass in the right upper lobe of the patient's lung.



Figure 2: The PET/CT scan also revealed a small mass in the patient's liver. PET/CT was instrumental in finding this mass.

Please call 610-526-2200 for more information or to schedule an appointment.