



Nuclear Medicine

Gabriel Soudry, MD
gabriel.soudry@medstar.net
Director, Nuclear Medicine and PET-CT
Services

B-Cell Lymphoma



Fig. 1

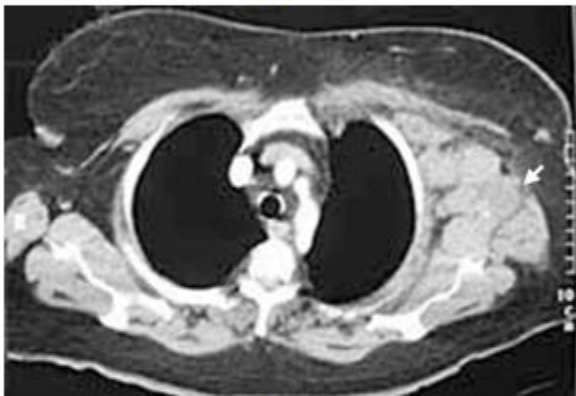


Fig. 2

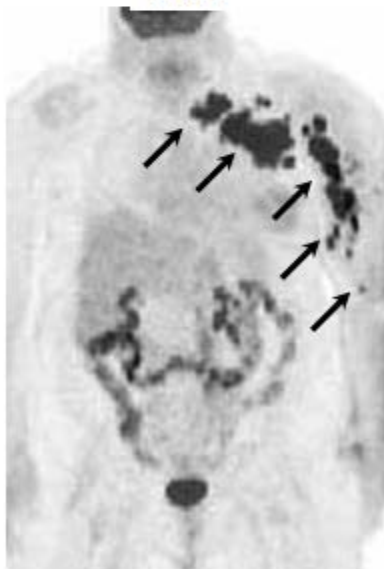


Fig. 3

This 67 year old woman presented with left arm pain and swelling. On physical exam she was found to have palpable adenopathy in the left supraclavicular and axillary regions. An ultrasound-guided biopsy showed large **B-cell lymphoma**. A staging CT scan of the chest (Figs. 1,2), abdomen, and pelvis was reported as showing marked left axillary adenopathy (arrowheads) with a question of a soft tissue mass associated with an anterior abdominal surgical scar.

A PET scan was obtained (Fig. 3) which showed large conglomerate areas of uptake extending through the base of the neck on the left, the left supraclavicular region, the left axilla, and the left arm (arrows). Only physiologic bowel activity and renal excretion of tracer were present in the abdomen and pelvis.

How did the PET-CT help?

The PET was helpful in showing the full extent of disease, including left arm involvement that was not previously noted because the arms are routinely raised and out of the field of view on CT scans. The PET also showed that there was no abdominal involvement. Based on the PET findings, when the patient went for radiotherapy after successfully completing chemotherapy, the radiotherapy field was extended to include the area of involvement in the left arm.

A recent study showed that PET was the most accurate staging modality for lymphoma, significantly better than CT and bone marrow biopsy, and that the use of PET led to changes in therapy in 8% of patients¹.

(1) Cancer
2001;91:889-99