

CASE STUDY

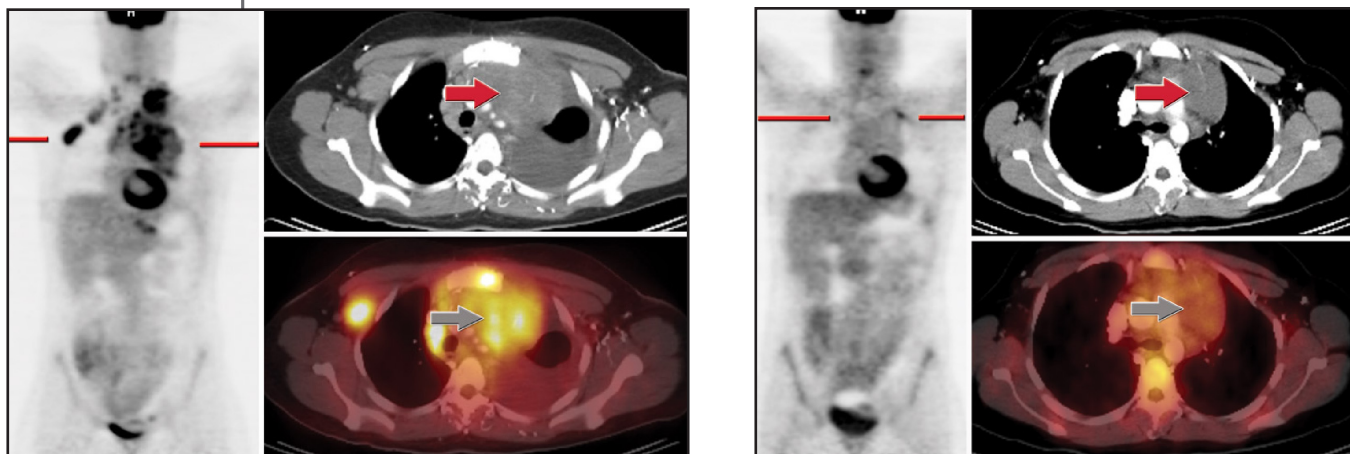
LYMPHOMA

HISTORY

53-year-old man with recently diagnosed non-Hodgkin's lymphoma for staging PET/CT.

PET/CT FINDINGS

Marked FDG uptake throughout the mediastinum and in the right axilla/supraclavicular area corresponding to bulky adenopathy on the CT portion of the exam compatible with malignancy.



TREATMENT / FOLLOW UP

Chemotherapy (CHOP). Follow-up PET/CT ordered following 1 cycle.

FOLLOW UP PET/CT FINDINGS

Complete resolution of abnormal FDG activity compatible with a good response to therapy. Focal apparent FDG activity in the left supraclavicular area was not present on the uncorrected images compatible with an attenuation correction artifact. Bulky adenopathy is still present, but no increased FDG activity is present.

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DISCUSSION

This case demonstrates the power of PET/CT to assess response to therapy soon after initiation. The strength of the modality is in the ability to assess an early response to therapy by assessing the metabolic changes. As shown in the second set of images, there is still considerable soft tissue abnormality present, but no increased FDG activity. Evidence suggests that for non-Hodgkin's lymphoma, patients are to be categorized as responders (better overall survival) only if there is minimal or no residual FDG activity on follow up exams after therapy initiation. The metabolic changes can be assessed after one cycle of chemotherapy, whereas the soft tissue component will take much longer to regress and may remain indefinitely.