

## Focus: Breast

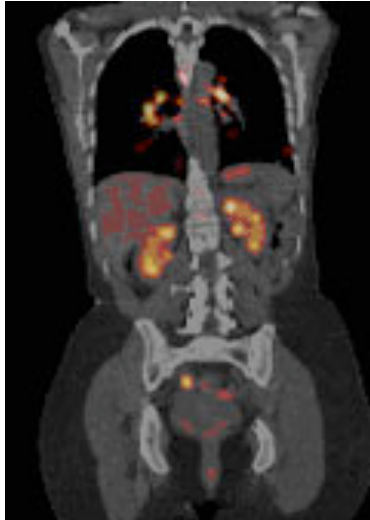


Figure 1



Figure 2

### Clinical History

A 39 year old woman with history of breast carcinoma treated with left mastectomy and tamoxifen therapy in 2003, presented with enlarged neck nodes suspicious for metastases. The patient was referred for PET/CT which was performed in September 2006.

### Imaging Findings PET/CT Scan 9/12/2006:

The PET/CT study showed extensive FDG avid supraclavicular and mediastinal lymph node metastases involving bilateral hilar nodes as well as anterior mediastinal and prevascular nodes. Metabolically active celiac node metastases were also visualized. There were multiple metastatic lung nodules in both lobes (Fig. 1).

Based on the PET/CT findings the patient was classified as stage IV breast cancer and was put on Herceptin® chemotherapy and Tamoxifen was continued. The patient was referred for a follow-up PET/CT scan to evaluate therapeutic response in January 2007.

### Imaging Findings PET/CT Scan 1/3/2007:

January 2007 showed complete resolution of previously metabolically active supraclavicular and mediastinal and portocaval lymphadenopathy. The metabolically active lung parenchymal nodules also show partial resolution of activity suggesting positive therapeutic response.

### Discussion

This study shows the value of PET in correctly staging the patient and guiding appropriate therapy as well as acting as an indicator of therapeutic response.

Data courtesy of Dr. Charles Intenzo and Dr. Sung Kim, Jefferson Center City Imaging, Philadelphia, PA