

# PETIMAGING

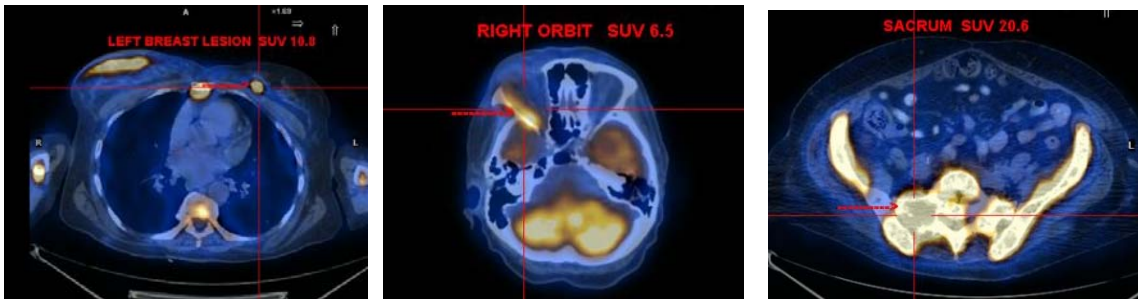
## INTEGRATED PET/CT SCANNING CASE STUDY N<sup>o</sup> 96

### Restaging Multiple Myeloma

A 72 year old female who presents with hypercalcemia, anemia, and multiple lytic bone lesions is diagnosed in August with multiple myeloma. She is treated with four cycles of chemotherapy. In February, she presents with a mass and skin changes in the superior and medial region of the right breast, and a mammogram and ultrasound reveal a large irregular heterogeneous mass in the right breast. She also presents with proptosis and chemosis of the right eye along with headaches.

Periorbital soft tissue swelling and enhancement are identified on MRI, consistent with orbital pseudotumor or, less likely, possible neoplastic causes such as lymphoma or metastatic disease.

The breast and the orbital lesion are found to be plasmacytomas consistent with the multiple myeloma. She proceeds to have surgery of the right eye with radiation therapy as well as chemotherapy. A PET/CT is ordered to restage the cancer.



PET/CT identifies myelomatous involvement of both breasts with a right breast lesion measuring 8.8 cm x 4.2 cm with an SUV of 19.8 and a left breast focus measuring 8 mm x 9 mm with an SUV of 10.8. The lesion in the right orbit is also hypermetabolic with an SUV of 6.5. As well, extensive bony metastases are identified with diffuse intense uptake which correlate with lytic or sclerotic lesions on the CT images.