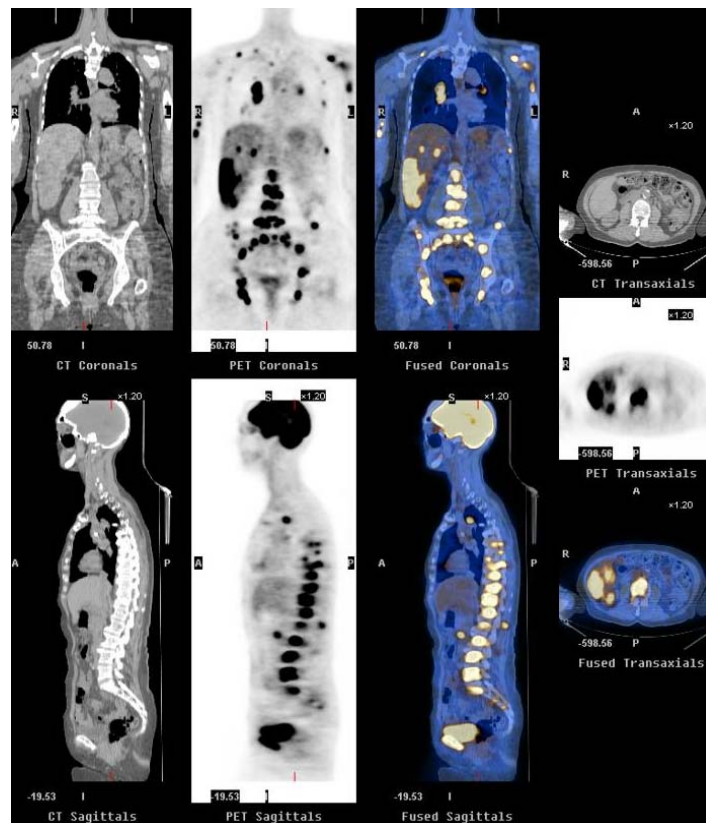


PETIMAGING

INTEGRATED PET/CT SCANNING CASE STUDY N^o 51

Thyroid Cancer Recurrence

A 67 year old female is diagnosed with papillary thyroid cancer at which time she has a thyroidectomy. Two years later, she develops a recurrence in a cervical lymph node which is treated with radiation therapy. She remains in remission for three years until she presents with a rising thyroglobulin level and a negative I-131 scan. PET/CT is ordered to identify possible recurrence.



Diffuse, markedly hypermetabolic foci are present throughout the axial and appendicular skeleton including the right occipital condyle, cervical spine, thoracic spine, lumbar spine, bilateral sacrum and iliac bones, sternum, bilateral scapula, bilateral ribs, bilateral humeri, bilateral acetabula and proximal femurs. Multiple hypermetabolic foci are also seen within the hepatic parenchyma including a large lesion in the inferior right lobe of the liver. Bilateral hilar and mediastinal lymph nodes are revealed as are multiple hypermetabolic pulmonary nodules. A hypermetabolic focus at the umbilicus is consistent with a soft tissue metastasis