

PETIMAGING

INTEGRATED PET/CT SCANNING CASE STUDY N^o 101

Restaging Squamous Cell Carcinoma After Radiation Therapy

An 82 year old male is diagnosed with a subcutaneous squamous cell carcinoma in the left preauricular area at which time he undergoes radiation therapy to the primary tumor. A CT scan of the soft tissues of the neck conducted 3 months later reveals resolution of the previously identified spiculated mass in this area, however a new mass in the left lateral pterygoid muscle measuring 1.7 x 1.4 cm is identified. No additional sites of disease are noted, and radiation therapy is scheduled. PET/CT ordered at that time confirms the presence of the pterygoid metastasis (SUV_{max} of 15.95) as well as a soft tissue nodularity measuring approximately 9 x 6 mm with an SUV_{max} of 5.1.



Unfortunately, the whole body PET/CT also reveals a 12 cm segment of the mid to distal esophagus with an SUV_{max} of 14.1 as well as hypermetabolic lymphadenopathy in the bilateral hila and subcarina. This esophageal lesion is biopsy proven as a second primary tumor. Radiation therapy is cancelled, and the patient decides not to pursue active treatment.

