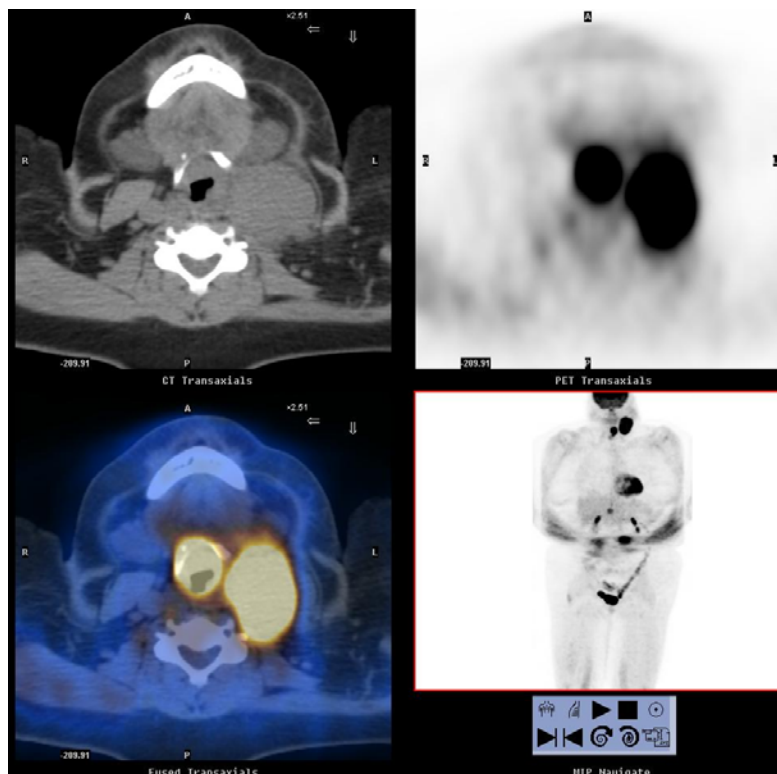


PETIMAGING

INTEGRATED PET/CT SCANNING CASE STUDY N^o 71

PET/CT to Stage Head and Neck Cancer

A 55 year old female presents with vocal hoarseness. She undergoes laryngoscopy at which time vocal fold polyps are removed. Pathology reveals no definite dysplasia or malignancy. The patient continues to complain of pharyngitis and three months later presents with a mass in her neck. CT identifies a mass at the level of the left vallecula as well as left neck lymphadenopathy. Biopsies of the tongue base and vallecula reveal inflammation, but not malignancy. Her physician feels that the lymphadenopathy is secondary to reflux. A FNA biopsy of the left cervical nodes is indeterminate. A second FNA biopsy two weeks later confirms squamous cell carcinoma.



A PET/CT ordered for staging discovers a soft tissue density encasing the left carotid space from the level of the hyoid bone to the base of the neck with an SUV of 11.7. A portion of this mass is **photopenic**, consistent with necrosis. As well, there is a second mass at the level of the larynx involving the epiglottis and the vallecula with an SUV of 13.3 which is compromising the airway. Fortunately, no distant metastases are identified.