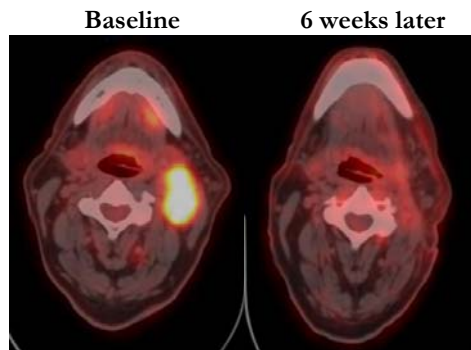


PETIMAGING

INTEGRATED PET/CT SCANNING CASE STUDY N^o 53

Directing the Course of Treatment in Head and Neck Cancer

A 65 year old male with newly diagnosed squamous cell carcinoma of the left oropharynx and supraglottic larynx is referred for a staging PET/CT. The scan reveals left cervical and A/P window lymphadenopathy. The patient undergoes surgery after which he is to begin an 8 week course of combined-modality therapy utilizing intensity modulated radiation therapy (IMRT) along with radiosensitizing systemic chemotherapy. In order to assist in tumor volume calculation for radiation therapy planning, a repeat PET/CT is ordered to restage the patient. The previously noted, markedly hypermetabolic left neck lymph nodes are no longer visualized.



However, due to the aggressive nature of the cancer, the PET/CT shows numerous hypermetabolic pulmonary nodules consistent with metastases, an increase in mediastinal lymphadenopathy, and new probable liver metastases. Based on the findings of the PET/CT the radiation oncologist cancels his therapy recommendations and refers the patient to a medical oncologist to begin systemic chemotherapy.

