

Case #15 - Summary Sheet

Clinical History

A 67 year old woman presented for evaluation after experiencing several months of pain in the face and jaw. She underwent a CT scan which revealed an extensive mass in right maxillary sinus, eroding through the palate, orbital floor, and pterygoid plates and extending into the lateral nasal wall. A CT guided biopsy revealed a poorly differentiated squamous cell carcinoma. She was offered reconstructive surgery. The patient requested a second opinion and the surgeon referred her for an ¹⁸F FDG PET•CT scan for initial staging.

Imaging Findings

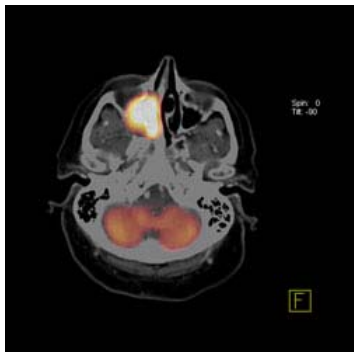


Fig. 2

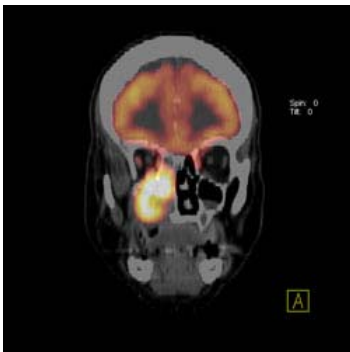


Fig. 4

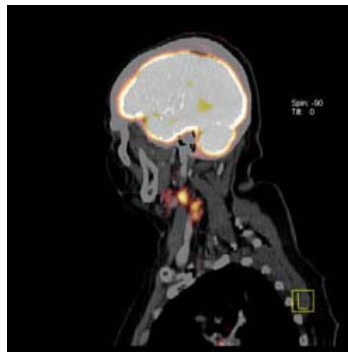


Fig. 10

Imaging Findings

The FDG PET•CT study revealed a large intensely FDG avid mass (SUV 22.8) in the right maxillary sinus and FDG avid lymph nodes on the right side of the neck.

Diagnosis

The PET•CT findings suggested a large primary nasopharyngeal carcinoma with bilateral neck node metastases.

Treatment

In view of the PET•CT appearance suggesting large primary nasopharyngeal carcinoma with bilateral neck node metastases, the patient was put on chemotherapy with 5-FU, cisplatin and Taxol®.

The patient underwent the first cycle of chemotherapy and was admitted for follow-up and chemotherapy port cellulitis. She underwent a follow-up CT which revealed near complete regression of maxillary sinus tumor.

In view of the apparent response of the tumor to chemotherapy, a follow-up PET•CT was requested. It was important to determine the response of the nodal metastases before a decision was made on the next therapeutic approach. This would probably be a continuation to the next chemotherapy cycle rather than reconstructive surgery.

Discussion

PET•CT significantly changed the management of the patient by identifying bilateral FDG positive neck node metastases which were not clearly defined on the initial CT scan. The patient was initially offered surgery before the PET•CT scan, but the management approach was changed to chemotherapy after PET•CT demonstrated neck node metastases. Further management decisions will also depend on the follow-up PET•CT scan which is expected to show significant regression, based on the fact that the follow-up CT demonstrated significant regression of the maxillary sinus mass.

Data courtesy of Dr. David Townsend, University of Tennessee Medical Center, Knoxville, Tennessee

*Any of the protocols presented herein are for informational purposes and are not meant to substitute for any clinicians' judgment in how best to use any medical devices. It is the clinician that makes all diagnostic determinations based upon education, learning and experience.