

Focus: Head & Neck Cancer



Coronal Image



Sagittal Image

History:

57-year-old male presented with a right neck mass. Biopsy confirmed poorly differentiated carcinoma. Further evaluation revealed primary right nasopharyngeal cancer. Initial clinical staging was Stage IIB.

Findings:

PET revealed foci of intense FDG uptake in the nasopharynx and adjacent right neck. These are consistent with primary cancer with right cervical lymph node metastasis. In addition, the PET revealed multiple foci of hyper metabolism in the left hip, sacrum, T2, and both proximal femora, that are consistent with metastasis.

How Did PET Help?

PET correctly identified distant bone metastasis and upgraded this patient's cancer staging. Originally staged as IIB, the patient was upgraded to Stage IV due to the multiple distant bone metastases seen on PET. Treatment was also changed based on the PET finding.

Discussion:

They found that the patient-based sensitivity and specificity of PET/CT for distant metastases was 100%. In addition the ability of PET/CT to detect occult distant metastases is valuable in avoiding aggressive locoregional radiotherapy in some nasopharyngeal cancer patients, especially those with primary disease at a nodal stage of N2-3.

New England PET 2005