

ROLE OF PET-CT SCAN IN RECURENT/ADVANCED HEAD & NECK CANCER

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Dear Sir,

The clinical usefulness and role of FDG-PET CT for detection of lymph node involvement and recurrences in patients with head and neck cancer is very well-established . It has been found to be superior to conventional imaging work-ups in the evaluation of patients with head and neck malignancies . FDG PET is also found to be more accurate than CT/MRI imaging in oral cavity cancer¹ . However, potential clinical applications include pretreatment staging, treatment monitoring and evaluation of the previously treated patients . The current practice is not in favor of utilizing CT-PET for staging of all newly diagnosed squamous cell carcinomas. However, PET can detect metastatic cervical lymph nodes, which may be clinically occult and may not be detected by CT or MR imaging . It can also detect primary head and neck squamous cell carcinomas greater than 1 cm in size. PET-CT may be performed in squamous cell carcinoma to evaluate for possible occult distant metastases to the lungs or bones .

A 48 year old male reported to the dept. of head & neck oncology with a lesion measuring 2 x 1 cm in left buccal mucosa. Clinical examination of neck was N2a on left side. cTNM staging was T1N2aMx. Since patient complained about back pain from 4 days PET-CT scan was recommended to check for occult distant metastasis. The report shows a increased FDG uptake with extensive metastasis to vertebral column, bilateral supraclavicular and mediastinal nodes and other organs like lung, liver and long bones. The TNM staging was upgraded to T1N2bM1.(Fig 1).

A 43 year old male reported to the department with proliferative lesion 4 x 5 cm in floor of mouth and ventral surface of tongue. There was bilateral cervical lymphadenopathy. cTNM staging was T2N2bMx. Since he had persistent cough for 9 days , PET-CT scan was recommended . The report showed increased FDG uptake in bilateral supraclavicular right

pectoral and mediastinal nodes, increased metabolic activity of necrotic nodule in superior segment of right lower lobe of lung.(Fig 2)

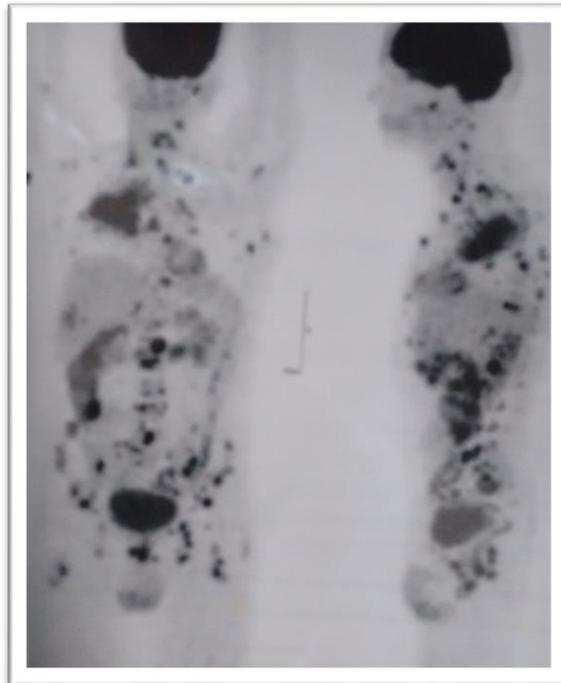


Fig 1- FDG uptake with extensive metastasis to vertebral column, bilateral supraclavicular and mediastinal nodes and other organs like lung, liver and long bones.

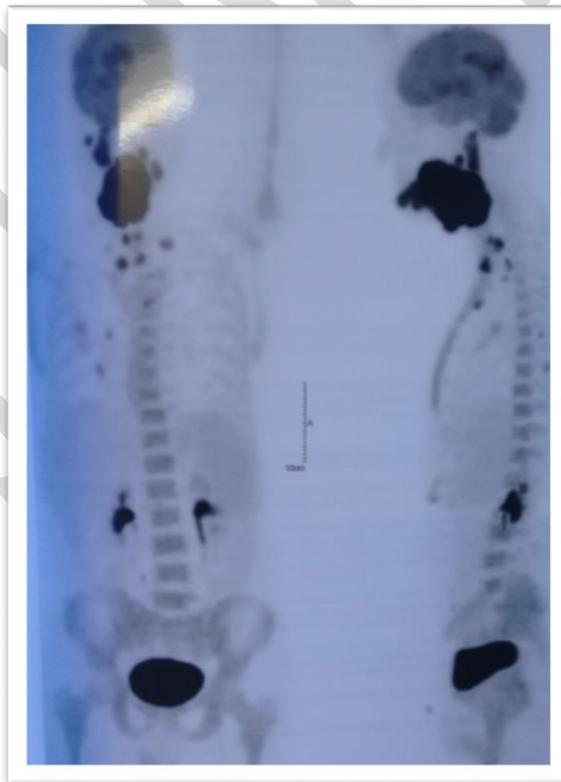


Fig2- Increased FDG uptake in bilateral supraclavicular right pectoral and mediastinal nodes, increased metabolic activity of necrotic nodule in superior segment of right lower lobe of lung.

The presence of pulmonary metastases upstages a patient from M0 to M1 and alters the treatment regimen². Routine imaging work-up for the patient with pulmonary squamous cell carcinoma includes conventional radiography of the chest at most institutions. Chest CT is performed in patients with advanced stage disease. A solitary nodule on CT scan may represent a metastasis or a granuloma. The presence of pulmonary metastases upstages a patient from M0 to M1 and alters the treatment regimen^{3,4}. Routine imaging work-up for the patient with pulmonary squamous cell carcinoma includes conventional radiography of the chest at most institutions. Though incidence of distant metastasis is less than 10 % in head and neck cancers, some times the clinician fail to identify the distant metastasis due to non-availability of PET-CT scan equipment or due its financial cost when the patient is not affordable. But appropriate steps must be taken based on the clinical symptoms of the patients which must not be ignore by the surgeon and PET-CT scan needs to be done which can change the whole treatment management of the patient.

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