

FDG PET/CT – EFFICIENCY IN EVALUATING PATIENTS OF DIFFERENTIATED THYROID CARCINOMA WITH ELEVATED THYROGLOBULIN AND NEGATIVE IODINE SCAN.

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Background/Purpose: To determine the adequacy of FDG PET/CT in identifying sites of recurrence in patients of differentiated thyroid carcinoma (DTC) with elevated thyroglobulin (Tg) levels and negative whole body iodine scans.

Methods: A retrospective evaluation of DTC referred with elevated thyroglobulin levels and negative whole body iodine scans in one year period was done. 28 patients from the database included. Patients grouped into positive and with no abnormalities

Abnormalities grouped into local, nodal disease in neck and elsewhere, lung and bone metastases and other sites.

A comparison of FDG PET/CT finding was done with conventional imaging modalities (CIM).

Results: 22 patients showed positive studies with local recurrence in 9 patients, also seen on CIM.

16 patients showed neck nodes concordant with CIM and negative in 1/2 equivocal CIM studies. Nodes at other sites were seen in 9 patients.

10 patients had lung lesions diagnosed on the CT part of the study, non resolution of small nodules in 2 patients on PET.

Skeletal metastases were seen in 9 patients.

There were no false positive findings. The negative FDG PET/CT in 6/28 patients did not reveal any abnormality on conventional modalities either.

PET was concordant with CIM in identifying recurrence at local, nodal and other metastatic sites.

Discussion & Conclusion: FDG PET/CT study can be considered as a comprehensive imaging modality to restage DTC in non iodine concentrating pathologies when compared with conventional imaging modalities.