

DIAGNOSIS AND TREATMENT OF THE ‘TENIS’ SYNDROME: SINGLE CENTRE EXPERIENCE FROM PAKISTAN

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Background/Purpose: Differentiated thyroid cancer (DTC) patients with Thyroglobulin Elevation but Negative Iodine Scintigraphy, the ‘TENIS’ syndrome, represent a diagnostic and therapeutic challenge. We present retrospective review of FDG-PET/CT scans and treatment in ‘TENIS’ syndrome at our cancer centre.

Methods: 52 FDG-PET/CT scans were performed in 49 DTC patients with TENIS syndrome between September 2009 and March 2013. 26 females, 23 males. Mean-age 42.2+13.8 years (range 9-75 years). 41 patients had papillary carcinoma, 8 had follicular carcinoma. FDG scan were done in hypothyroid state with correlative thyroglobulin levels (range 6.3–4436 ng/ml)

Results: FDG avid disease was identified in 44/52 scans (sensitivity 85%). Neck nodes were commonest site of FDG avid disease (16 patients) followed by thyroid-bed (15 patients). Six patients had FDG avid lung disease, 8 patients had non-FDG avid lung nodules. Eight patients had no metabolic/radiological evidence of disease. Twenty patients had histopathological confirmation of disease involvement [FNA 15, surgery 5] while 2 had negative FNA. Multimodality treatment was individualized according to site of recurrence and other factors. 11 patients were treated with surgery and 8 with external radiation. Empirical I131 was given to 27 patients with follow up Tg level documented in 16 [regression 14 pts, progression 2 pts]. All 37 patients, registered at our centre, are on supra-physiologic thyroxin for TSH suppression.

Discussion & Conclusion: FDG-PET/CT is useful in identifying recurrence in DTC patients with the ‘TENIS’ syndrome. Empiric I131 therapy does have a role in treating ‘TENIS’ syndrome as reflected by regression in thyroglobulin levels.