

CERVICAL LYMPH NODE THYROGLOBULIN ELEVATION FROM FINE NEEDLE ASPIRATES IS A RELIABLE MARKER OF PAPILLARY THYROID CANCER NODAL METASTASIS

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Background/Purpose: To evaluate the utility of thyroglobulin measurement from fine needle aspirates (FNA) of cervical lymph node (CLN) in patients with a history of papillary thyroid cancer (PTC)

Methods: In a retrospective analysis, we evaluated 32 patients (24 F) with enlarged CLN on neck ultrasound post-total thyroidectomy and radioiodine ablation for PTC. FNA biopsies were performed on the CLN and thyroglobulin measured from needle washouts in 1-ml normal saline (FNA-Tg)

Results: The mean age of the patients was 37.9 years (range 18.4-80.6). There were 9/32 patients (5 F) with an elevated FNA-Tg, mean Tg 7786.3 $\mu\text{g/L}$ (range 10.4-17844.0), and 23/32 patients (19 F) with FNA-Tg < 10 $\mu\text{g/L}$, mean Tg 3.6 $\mu\text{g/L}$ (1.0-6.4). FNA cytology was reported as malignant or suspicious for malignancy in 8/9 cases with elevated FNA-Tg, and as inadequate in one case, but all 9 CLN were confirmed as malignant after surgical excision. There was no evidence of malignancy in any of the 23 CLN FNA cytology in patients with normal FNA-Tg. On ultrasound, the respective number of cuboidal CLN, hypoechoic CLN and those with abnormal vascularity on Doppler were 5 (56%), 8 (89%) and 5 (56%), compared to 11 (48%), 14 (61%) and 3 (13%) in patients with normal FNA-Tg

Discussion & Conclusion: An elevated FNA-Tg appears to be at least as reliable as the identification of malignant cells on FNA biopsies of cervical lymph nodes in post-surgical PTC patients