Clinical apparent nodes in the lateral compartment are associated with a high risk of positive nodes in the central compartment: What are we missing when we don’t perform a prophylactic central neck dissection?

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Background/Purpose: Prophylactic central neck dissection (pCND) in the management of patients with thyroid cancer is controversial. Recommendation 27 of the ATA guidelines specifies that therapeutic dissection of central and lateral compartments be performed when nodes are clinically apparent in those compartments. We hypothesized that there would be a significant relationship between clinically apparent nodes in the lateral compartment and lymph node positivity in the central neck, and thereby justifying a strong mandate for the performance central compartment dissection in the presence of clinically apparent lateral nodes.

Methods: We conducted a retrospective review of 31 previously untreated thyroid cancer patients treated from January 2004 to April 2013, who presented with clinically apparent lateral compartment(s). Each patient underwent lateral node dissection(s), central node dissection, and total thyroidectomy. The histology of lateral and central nodes was evaluated for number and presence of extranodal extension (ENE). Entry criteria included patients with at least 5 central nodes removed.

Results: Out of the 31 patients with clinically apparent lateral nodes, 30 (96.8%) were found to have positive central nodes. Positive lateral nodes had a significant linear relationship to positive central compartment nodes (Pearson Coefficient: 0.50, p-value: 0.02). 26 (83.9%) patients had greater than or equal to 5 positive central nodes. Of the patients with positive central nodes, 9 (30%) had ENE.

Discussion & Conclusion: The high incidence of positive central nodes (mean = 9) and a high incidence of ENE (30%) justifies a strong recommendation to perform a central compartment dissection for all patients with clinically apparent lateral nodes.