EXPLORING CENTRAL NECK DISSECTION FOR WELL-DIFFERENTIATED THYROID CANCER AMONGST SURGEONS IN ALBERTA

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Background/Purpose: Performing a *prophylactic* central neck dissection (pCND) in patients with well-differentiated thyroid cancer (WDTC) is controversial. Further, the role that lymph node (LN) metastases play in treatment with post-operative radioactive iodine (RAI) remains unclear.

Objectives: [1] Assess provincial utilization of pCND. [2] Explore variability of LN retrieval across surgeons/centers. [3] Determine factors that predict use of RAI.

Methods: Study Design: Province-wide cross-sectional analysis

Methods: A prospectively collected synoptic operative report [WebSMR] identified patients who underwent total thyroidectomy for WDTC. Demographics, peri-operative and pathologic factors were analyzed.

Results: Between 2009-2012, 18 surgeons performed 425 CND's, of which 222 were prophylactic. Interestingly, age, tumor size, and suspicion of extra-thyroidal extension were *not* predictors of receiving a pCLND. Positive LN's were retrieved in 40% of the pCND's. There was a large variation when comparing LN yield by surgeon ($p<.01$), ranging from 0 to 29 and 0 to 49 nodes in unilateral and bilateral CND's respectively. This variation was also reflected across centres ($p<0.05$). Amongst all peri-operative predictors of receiving post-operative RAI, presence of LN metastases was the strongest predictor [OR=5.9(3.7-9.5)], while tumor size was a modest predictor [OR=1.8(1.5-2.1)]. Neither age nor evidence of extrathyroidal extension predicted use of post-operative RAI.

Discussion & Conclusion: In this provincial cohort, there were no associations between pre-operative parameters and performing a pCND, implying this decision was surgeon-specific. LN yields were highly variable across surgeons and centres. pCND upstaged 40% of patients from cN0 to pN1a, and as such these patients were six times more likely to receive adjuvant RAI.