

CENTRAL COMPARTMENT DISSECTIONS IN DIFFERENTIATED THYROID CANCERS: RISK FACTORS AND MORBIDITY OF CLEARANCE – RESULTS FROM 688 CASES.

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Background/Purpose: Central compartment (CC) nodes is an important aspect in management of differentiated thyroid cancers (DTC), and has generated much debate. Clearance of these nodes is known to have distinct morbidity. Preoperative identification of patients at risk of metastasis to the CC would be valuable. The purpose of this study is to determine the risk of nodal metastasis to CC relative to known prognostic variables, with emphasis on nodule size.

Methods: This was a retrospective review of 688 cases of DTC receiving upfront surgery at our institute from 2006 to 2012. The risk factors studied were age, gender, tumor size, extra-thyroidal extension and focality. Univariate and multivariate analyses were used to find relation between these factors and CC nodes. An attempt was made to find out cut off value of tumor size that would predict CC nodal metastasis, using a Receiver Operated Characteristic (ROC) curve. Incidence of transient post-operative hypocalcemia was also found out.

Results: On multivariate analysis, factors that independently predicted central nodes were age > 45 years, male gender and presence of extrathyroidal extension. Tumor size was not a significant predictive factor for central nodes on multivariate analysis. Area under ROC curve indicated that size was not predictive of CC nodes.

Discussion & Conclusion: We recommend that CC dissection must be done for: age > 45 years, male patients and presence of extrathyroidal extension. Nodule size may not be a criterion governing decision of CC clearance. In high volume centres, CC dissection has acceptable morbidity.