

RISK FACTORS FOR NECK NODAL METASTASIS IN PAPILLARY THYROID CARCINOMA: A STUDY OF 1555 PATIENTS

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Background/Purpose: To describe the clinicopathological features of papillary thyroid carcinoma (PTC) and to identify the risk factors for central lymph node metastasis (CLNM) and lateral neck lymph node metastasis (LLNM) that can guide surgical strategies for patients with PTC.

Methods: We analyzed the data from the medical records of 1555 consecutive patients diagnosed with PTC who all treated at a university-based tertiary care cancer hospital. In this retrospective cross-sectional study, risk factors and outcome variables were assessed at the time of surgery of the primary tumor.

Results: Our multivariate logistic regression analysis found male gender, younger age (≤ 45 yr of age), extrathyroidal extension, and larger size of the primary tumor (10mm) to be associated with CLNM; Larger size of the primary tumor (10mm) was associated with the highest risk (odds ratio 3.079, 95% confidence interval 2.407-3.938). Male gender and CLNM were associated with LLNM. CLNM was associated with the highest risk (odds ratio 6.772, 95% confidence interval 3.529-12.995). This study also analyzed whether nodular goiter, thyroid adenoma and chronic lymphocytic thyroiditis were associated with cervical lymph node metastasis of PTC. The results showed three kinds of benign thyroid diseases had no obvious correlation with neck lymph node metastasis.

Discussion & Conclusion: Prophylactic central lymph node dissection need be considered in PTC patients presenting with risk factors. For LLNM, the factors of male gender and CLMN were factors that conferred an increased risk. For male patients with severe CLNM, modified lateral lymph node dissection (LLND) may be helpful to patient prognosis.