

## **SUBCLINICAL CENTRAL LYMPH NODE METASTASIS IN PAPILLARY THYROID MICROCARCINOMA EVALUATED AS cT1aN0 BY PREOPERATIVE IMAGING STUDY**

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**Background/Purpose:** Papillary thyroid microcarcinoma (PTMC) evaluated as cT1aN0 (no extrathyroidal extension, no lymph node metastasis) by preoperative imaging study generally has a highly favorable prognosis. Therefore, the optimal surgical extent remains controversial, especially regarding the necessity of elective central neck dissection. Our study focused on preoperative features of cT1aN0 PTMC and the correlation of these features with subclinical central lymph node metastasis.

**Methods:** Of 584 PTC patients who underwent thyroidectomy at the Kosin University Gospel Hospital from January 2009 to July 2011, 219 PTMC cN0 patients were reviewed retrospectively. Correlations between pathologic outcomes of subclinical lymph node metastasis and clinical factors of the patients were investigated.

**Results:** Postoperative pathology report presented extrathyroidal extension (ETE) of primary tumor in 77 patients (35.2%) and subclinical central lymph node metastasis in 62 patients (28.3%). Subclinical central lymph node metastasis was related to tumor location at the isthmus ( $p=0.03$ ,  $OR=4.967$ ), while multifocality showed borderline significance ( $p=0.08$ ) in multivariate analysis. PTMC of isthmus was statistically related to the presence of ETE, multifocality and subclinical lymph node metastasis. In addition, PTMC of isthmus was significantly related to pretracheal lymph node metastasis ( $p=0.001$ ) showing high incidence of 50% (7 out of 14 patients).

**Discussion & Conclusion:** Despite the absence of ETE and lymph node metastasis in the preoperative imaging studies of patients with PTMC, increased risk of subclinical central lymph node metastasis should be considered with those with multifocality and tumor located at the isthmus.