

ASSOCIATION OF HASHIMOTO'S THYROIDITIS WITH CLINICOPATHOLOGIC FEATURES AND BRAF^{V600E} MUTATION IN PAPILLARY THYROID CANCER

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Background/Purpose: The aim of this study was to evaluate the association of Hashimoto's thyroiditis (HT) and clinicopathologic features, and BRAF^{V600E} mutation in papillary thyroid cancer (PTC).

Methods: We reviewed the medical records of 547 consecutive PTC patients who underwent surgery in Seoul National University Hospital from February, 2009 to January, 2010. The differences in clinicopathologic features, and BRAF^{V600E} mutation were analyzed in PTC patients with or without HT. Both univariate and multivariate analyses were performed to analyze associations between HT and clinicopathologic features, and BRAF^{V600E} mutation.

Results: HT was found in 67/547 (12.2%) patients with PTC. HT was significantly associated with gender, bilaterality, TNM stage, AMES stage, MACIS score, and BRAF^{V600E} mutation ($p < 0.05$). Multiple logistic regression showed that it was significantly associated with male gender (OR=0.230; 95% CI, 0.054–0.662), bilaterality (OR=4.076; 95% CI, 1.568–12.065), advanced stage (III/IV) (OR=0.361; 95% CI, 0.140–0.909), BRAF^{V600E} mutation (OR=0.338, 95% CI, 0.187–0.603), but not with age (≥ 45 years), size of tumor (> 1 cm), extrathyroidal extension, and lymph node metastases.

Discussion & Conclusion: These results showed that presence of HT was associated with less advanced stage in PTC patients. Future studies will be required to evaluate clinical outcome of PTC patient with HT.