

## **AGGRESSIVENESS AND PROGNOSIS OF FAMILIAL PAPILLARY THYROID MICROCARCINOMA: A STUDY OF 147 PATIENTS**

Park, Seulkee<sup>1</sup>; Kim, Sung Heun<sup>1</sup>; Ban, Eun Jung<sup>2</sup>; Son, Hae Young<sup>2</sup>; Kim, Won Woong<sup>2</sup>; Lee, Sohee<sup>2</sup>; Kang, Sang-Wook<sup>2</sup>; Jeong, Jong Ju<sup>2</sup>; Nam, Kee-Hyun<sup>2</sup>; Chung, Woung Youn<sup>2</sup>; Park, Cheong Soo<sup>2</sup>

<sup>1</sup>Department of Surgery, Dong A University College of Medicine, Busan, Korea, Republic

of; <sup>2</sup>Department of Surgery, Yonsei University College of Medicine, Seoul, Korea, Korea, Republic of

**Background/Purpose:** With the increasing incidence of papillary thyroid microcarcinoma (PTM), familial papillary thyroid microcarcinoma (FPTM) is now recognized more frequently. However, the biological behavior of FPTM is poorly understood. The aim of this study was to investigate the prevalence of FPTM and its biological aggressiveness.

**Methods:** Between March 2006 and July 2010, 2,417 patients underwent primary surgical therapy for PTM and 147(6.1%) were further classified as FPTM. To determine the biological aggressiveness of FPTM, we compared the clinicopathological features and prognosis between familial and sporadic PTM.

**Results:** The male-to-female ratio was higher in FPTM than in sporadic PTM(1:4.4 vs. 1:7.5,  $p=0.019$ ). The central lymph node(LN) metastasis rate was significantly higher in FPTM than in sporadic PTM(36% vs. 27%,  $p=0.018$ ). The local recurrence rate was also higher in FPTM than in sporadic PTM(2.0% vs. 0.4%,  $p=0.032$ ).

**Discussion & Conclusion:** We identified familial occurrence in 6.1% of cases of PTM. FPTM is associated with a high rate of central LN metastasis and local recurrence. These findings suggest that prophylactic central compartment node dissection and close follow-up can be beneficial in FPTM patients.