AB001. OA01.01: Tumor size as a prognostic factor in limited stage thymic epithelial tumors: a multicenter analysis

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Background: In spite of the clinical utility of tumor size, few studies have focused on the relationship between tumor size and oncological outcome in thymic epithelial tumors (TETs). This study is aimed to clarify the prognostic value of the tumor size after complete resection of TETs after the stratification of limited and advanced tumor stage.

Methods: Clinical records of patients who underwent R0 resection for TETs were retrospectively collected from four tertiary centers between January 2000 and February 2013. All of 1,291 patients had information about Masaoka-Koga stage (M-K group), whereas 445 of them could be classified by the 8th TNM staging system (TNM group). We defined the whole stage of TETs with limited stage and advanced stage based on the criteria whether they confined within the surrounding fatty tissues without invasion.

Results: The median tumor size was 6.0±2.8 and 6.5±3.0 cm in M-K group and TNM group. According to the definition of current study, limited stage of TETs (M-K stage I/II or TNM stage I) was shown to have smaller tumor size than advanced stage with statistically significance in M-K group (5.8±2.7 *vs.* 7.2±3.0, P<0.001) and TNM group (6.2±3.0 *vs.* 7.2±3.1, P=0.003). In multivariate analysis, tumor size was found to be an independent prognostic factor for overall survival (OS) and freedom from recurrence (FFS) in limited stage (M-K group: P=0.004 for OS and 0.011 for FFR, TNM group: P=0.004 for OS and FFR), while it was not significant in advanced stage. Optimal cut-off value for tumor size was >5.5 cm for both OS and FFS, which statistically significant differences were shown in survival analysis according to the value.

Conclusions: Tumor size is the major determinant of prognosis for OS and FFR in limited stage TETs, such as breast and lung cancer without nodal involvement. The cut-off value >5.5 cm might be criteria for subdividing the 8th TNM stage I and help clinicians decide adjuvant treatment and proper surveillance.

Keywords: Thymic malignancy; tumor size; risk factor; oncological outcomes

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