

# AB010. Clinical significance of serum Cyfra 21-1 as a marker in thymic epithelial tumors

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**Background:** There have been no specific serum biomarkers for thymic epithelial tumors (TETs) yet. The study aimed to explore the diagnostic and prognostic value of potentially relevant serum tumor markers in TETs.

**Methods:** We retrospectively analyzed the database of our own with the aim of reviewing the clinical records of 301 patients who have a thymic epithelial tumor after radical thymectomy, in the period between November 2012 and December 2017. Logistic regression analysis was used to evaluate relationships between tumor markers and tumor characteristics. Cox regression analysis and Kaplan Meier analysis were used to evaluate free-from-recurrence (FFR) in complete resected (R0) patients.

**Results:** There were 231 (76.7%) thymoma patients, 70 (23.3%) thymic carcinomas (TCs) and neuroendocrine thymic tumors (NETTs) patients in the study. The carcinoembryonic antigen (CEA), Cyfra 21-1, squamous cell carcinoma (SCC) antigen, neuron-specific enolase (NSE), and cancer antigen 125 (CA125) levels were evaluated. Elevated Cyfra 21-1, older age, higher T stage, and N stage were associated with TCs and NETTs in multivariable logistic regression analysis. In 222 patients who received R0 resection without neoadjuvant therapy, elevated Cyfra 21-1, higher T stage, and TCs and NETTs were associated with a poorer 5-year FFR in Cox regression analysis. There were

significant differences in 5-year FFR between an elevated Cyfra 21-1 level and a normal Cyfra 21-1 level (42.9% vs. 92.4%,  $P < 0.001$ ). As for histological subtypes, TCs and NETTs were associated with a poorer 5-year FFR than thymomas (59.8% vs. 95.0%,  $P < 0.001$ ).

**Conclusions:** Serum Cyfra 21-1 level could be a potential tumor marker in the diagnosis of thymic carcinomas and NETTs, and the prognosis of recurrence.

**Keywords:** Cyfra 21-1; thymic tumors; tumor markers

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## Footnote

*Conflicts of Interest:* All authors have completed the ICMJE uniform disclosure form (available at <https://med.amegroups.com/article/view/10.21037/med-22-ab010/coif>). The authors have no conflicts of interest to declare.

*Ethical Statement:* The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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