Nestin and Klotho protein expression in neuroendocrine tumors of the lung

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OBJECTIVES

Finding a marker which can possibly be used to establish prognosis and help to adjust the treatment to the type and stage of tumor.

METHODS

We assessed immunohistochemically the expression of Nestin and Klotho in 40 patients. We retrospectively reviewed patient charts and analyzed multiple variables like tumor size and overall survival time.

RESULTS

We did not disclose correlation between Klotho, nestin expression and Ki-67, initial tumor size, TNM stage, overall survival in carcinoid tumors and LCNEC. Nestin expression was correlated with the patient's age in LCNEC group (p=0.048, r=-0.44). When comparing the level of expression of Klotho in carcinoids and LCNEC, it was significantly higher in the first group (p<0.0001). Additionally, nestin expression was more pronounced in LCNEC than carcinoids (p=0.0080).

CONCLUSIONS

Carcinoids usually defined by indolent clinical behavior are characterized by higher Klotho expression, then LCNEC. Adversely, nestin expression is more pronounced in aggressive LCNEC. It points to a conclusion that, both Klotho and nestin might be useful as a possible biomarkers. Further studies, on a larger group of patients should be conducted.