

Ekspresja niektórych molekularnych markerów immunohistochemicznych i ocena ich znaczenia prognostycznego w rakach płaskonabłonkowych jamy ustnej i wargi

Prognostic molecular markers in oral and lip squamous cell carcinoma - evaluation of expression and its significance

Magdalena Jaworska, Zofia Kołosza, Joanna Liszka, Barbara Nikiel, Maria Goleń, Dariusz Lange, Wojciech Ścierański, Grzegorz Namysłowski

Summary

Introduction: Head and neck cancer treatment optimization and individualization has become possible due to the implementation of the prognostic and predictive molecular markers in diagnostics. **Aim:** The aim of this study was an attempt to determine which of the investigated molecular markers may have prognostic and predictive value in head and neck cancers. **Materials and Methods:** The paraffin blocks from 47 patients with oral and lip squamous cell carcinoma (SCC) after surgical treatment in the Institute of Oncology in Gliwice in the period of 1998-2002 were investigated. For immunohistochemical studies the DAKO monoclonal antibodies were used: p53, Ki67, Cyclin D1, Cathepsin B and Cox2-Cayman Chemical antibody. Staining reactions were evaluated at 400x magnification. The average percent of staining cells was estimated in every case in the groups of patients with (N+) and without (No) node metastases. The results were subsequently juxtaposed with selected clinical and histological parameters. Statistical analysis was performed with Mann-Whitney and Kruskal-Wallis tests and the log rank test with a significance level of 0.05 ($p = 0,05$). **Results:** Significantly higher expression of Ki67 in N+ patients ($p = 0,010$) were recorded, although average staining in the group of treated and the group of unhealed patients was statistically insignificant. Cathepsin B expression (<20% and > 20%) was correlated with 3 year-long survival and a slight higher average staining (33,5%) in unhealed in comparison with treated patients (29,0%) was notified. Average expression of p53 in unhealed patients (33,1%) was slightly higher than in treated ones (28,4%). Weaker Cyclin D1 expression (<10%) correlated with higher disease free survival. Average Cyclin D1 staining in the groups of unhealed patients (19,6%) was higher than in the treated ones (12,0%). There were no significant differences in COX-2 staining in correlation with clinical and histological parameters. **Conclusions:** Lower expression of Cyclin D1 and Cathepsin B in neoplastic cells correlated with higher percentage of disease free survival what suggests the prognostic value of these markers. Higher proliferation activity of primary tumor neoplastic cells correlated with node metastases what may have the predictive value in the course of the disease. The different markers expressions observed