



Immunohistochemical Study of CK18 Expression In Head and Neck Squamous Cell Carcinoma

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Abstract

Background: CK18 is an epithelial-specific cytokeratin that undergoes cleavage by caspases during apoptosis. In a variety of organs, the expression of distinct intermediary filaments is associated with patient prognosis. Intermediary filaments are involved in cell motility and cancer progression.

Objective: To evaluate the expression of cytokeratin18 in head and neck Squamous cell carcinoma and to correlate the expression of Ck18 with different parameters such as age , gender and grading of tumor.

Materials and Methods: Thirty patients with histopathological proven and surgically treated head and neck squamous cell carcinomas were investigated for the immunohistochemical expression of Ck18. Correlations between clinicopathological features and the expression of Ck18 were evaluated statistically by Chi-square test and the level of significance was 0.05 (two-sided) in all statistical testing.

Results: Among patients 16 were males, 14 were female's patient, aged between 14 and 80 years (mean age 56 years) were evaluated. Out of the 30 specimens of the Head and Neck Squamous Cell Carcinoma studied, 23 cases (76.7%) showed positive CK 18 staining and 7 cases (23.3%) showed negative CK18 staining. Regarding to gender, in males 6 (37.5%) sections with weak positive expression, 1 (6.25%) sections with moderate positive expression, 3 (18.75%) sections with strong positive expression and 6 (37.5%) section with negative expression, While in females 7(50%) sections with weak positive expression, 3 (21.43%) sections with moderate and strong positive expression and only one (7.14%) section with negative expression.

Conclusion: CK 18 showed higher expression levels on moderately and poorly differentiated squamous Cell Carcinoma cases than well differentiated SCC cases. The correlation between CK-18 staining and grade level was non-significant that seemed to be going together with the pleomorphism and the number of mitosis.

Key worlds:CK18, head and neck squamous cell carcinoma, immunohistochemistry.

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