

Cancers of head and neck represents about 5% of all tumors. 80 to 90% of these tumors are constituted of squamous cell carcinomas. Despite a rapid progress in diagnostics and therapy the overall 5-year survival of this type of cancer is among the lowest of the major cancer types. This unfavourable situation needs the extensive research to found new markers to better characterize biological behavior of tumors as a rational background for more sophisticated therapeutic modalities. One of the most promising markers are endogenous lectins called galectins and their ligands. Especially galectin-1, -3 and -7 play a key role in pathology of squamous cell carcinomas. Galectin-7 is described in literature as a protein which has anti and pro-malignant features in different *in vitro* models. We studied tissue sections immunohistochemically and disclosed a correlation to increased status of differentiation and keratinization in head and neck squamous cell carcinomas. Other marker which could better characterize the tumors is nucleolar protein nucleostemin. We proved that presence of nucleostemin was documented in head and neck cancer, and its detection, together with the size properties of positive nucleoli, may relate to tumor cell features. Although nucleostemin is described as a marker of stem cells (e.g. neural or hematopoietic stem cells), we cannot consider this protein as realible marker of epidermal stem cells, because it is expressed by suprabasal, terminally differentiated keratinocytes. The fibroblasts prepared from stroma of squamous cell carcinoma influence the phenotype of normal human epidermal keratinocytes to be similar to epidermal stem cell. These fibroblasts can participate in the control of biological properties of this type of cancer.