HnRNP K Protein is Up-regulated and is Associated with Poor Prognostic in Head and Neck Scamous Cell Carcinoma (HNSCC)

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hnRNP K protein has been found in the nucleus, cytoplasm and mitochondria, and it has been implicated in a variety of cellular functions such as transcription, translation, RNA splicing, mRNA stability, chromatin remodeling, signal transduction and cell adhesion. It is an important regulator of transcription and one of its putative targets is the oncogene *myc*. Recently, we identified hnRNP K as one protein differentially expressed in HNSCC samples by proteomic tools. This study aimed to validate hnRNP K as a prognostic marker in HNSCC. Ninety three tumor histological samples spotted on the tissue microarray slide were analyzed by immunohistochemistry (IHC). Other twenty two tumors and respective surgical margins samples were tested by immunoblotting. The results showed 100% positive tumors for hnRNP K expression, and 32% was classified as strong staining by IHC. In normal tissue hnRNPK K localization was exclusively nuclear and in tumors localized both in the nucleus and cytoplasm. The up-regulation of hnRNP K protein in HNSCC was associated with non-survival. In overall survival, the strong staining in the nucleus was observed in 73% patients with poor survival (P=0.002) and in 77% with recidive (P=0.025). In conclusion hnRNP K protein is up-regulated and is associated with poor prognostic in HNSCC.

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