

Expression of remodelling enzymes (MMP2, MMP9) in samples of salivary gland's tumors

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Introduction Salivary gland tumors are morphologically and clinically diverse group of neoplasms and the most common tumor is the pleomorphic adenoma. **Objective** The aim of our work is to examine the expression of MMPs in tumors of salivary gland and to investigate the relationship between the expression and the biological behaviour of the tumor.

Material and methods In this paper we investigate two normal samples of salivary gland and twelve samples of tumors's salivary gland. These pathological samples are so distributed pleomorphic adenoma, five Whartin's tumor, two carcinoma, one myepithelioma and one lymphadenoma. All samples arise from parotid gland except one of pleomorphic adenoma which arises from submandibular gland. We evidenced the localization of MMP2 and MMP9 through IHC and gene expression through RT-PCR analysis.

Results In control samples we identified an expression of MMP2 and MMP9 by IHC, these data are confirmed by RT-PCR analysis. In lymphadenoma we identified gene expression of MMP2 and MMP9 these data are confirmed by IHC. In myepithelioma we identified either the gene expression of MMP2 and MMP9 or in the protein's expression of these two enzymes by IHC. In cases of pleomorphic adenoma we identified the expression of MMP2 and MMP9 by IHC, these data are confirmed by RT-PCR analysis. In cases of Warthin's tumors we identified the expression of all two MMPs by IHC and by RT-PCR analysis. In cases of carcinoma we identified the expression of MMP2 and MMP9 by IHC, these data are confirmed by RT-PCR analysis.

Conclusions In our cases examined we found that the mechanisms of remodelling about MMPs are present either in all physiological or in pathological tissues. Infact there is not clear difference between the groups we investigated, so that we conclude that there is not difference about the remodelling by MMP2 and MMP9 in samples investigated, so we are studying an other MMP, that is MMP8, to investigate if the behaviour of MMP8 will be similar.

Key word

MMPs, tumors, salivary gland