

The Aims of current study were to assess the immunohistochemical expression of TIMP-1 and MMP-9 in the salivary glands adenoid cystic carcinoma and polymorphous low grade adenocarcinoma and immunoexpression matching of these proteins with the outcomes of clinicopathology.

Twenty five blocks of salivary polymorphous low grade adenocarcinoma and another twenty five of salivary adenoid cystic carcinoma attained from the oral pathology department archives of College of Dentistry in Baghdad University and the hospital of Al-Shaheed Ghazi were retrospectively involved in our study which are inserted in archival formalin fixed paraffin. We gained and immunostained sections of four micrometer using monoclonal antibody against MMP-9 and TIMP-1. The detection of immunoexpression was by the existence of stain which are brown in color seen in the cytoplasm of cells of tumor. The quantity of cells that expressed the stain was related with the clinicopathological documents of the patients.

MMP-9 expression was found positive in 21 cases of PLGA and 22 cases of ACC restricted in tumor cells. TIMP-1 expression was found positive in 20 cases of PLGA and 19 cases of ACC limited in tumor cells.

The relation was seen non-significant [P=0.357] in concerning MMP-9 appearance in both types of tumor and [P=0.937] was seen about TIMP-1 expression in two types of tumor. The relation was seen non-significant in examples of gender [p= 0.117], sites [p= 0.991] and stage [p= 0.853] of PLGA and ACC was seen concerning MMP-9 and TIMP-1.

Non-Significant relation was seen with grade [p= 0.951] of ACC was detected regarding TIMP-1 and MMP-9.

An anxious equilibrium was seen between TIMP-1 and MMP-9 in malignant salivary gland neoplasm. Imbalanced of MMP-9/TIMP-1 expressions might offer the tumor cells a double growth benefit because uninhibited TIMP-1; deposition of ECM is joint with increase MMP-9; degradation of ECM. A multistep process created due to this communication which is capable to excite and possibly will show a portion in the genesis of salivary gland tumor; may chain forces to normalize invasive events related to these neoplasms.