

Immuno histo chemical expression of matrix metalloproteinase-9(MMP-9) and collagen IV in the keratocystodontogenic tumor and dentigerous cyst

Elahe Soufian

Khorasgan Islamic Azad University School of Dentistry, Iran

Objective: The aim of this study was to evaluate immuno histo chemical expression of matrix metalloproteinase-9 (MMP-9) and collagen IV in the keratocystodontogenic tumor (KOTs) and dentigerous cyst (DCs), to assess the role of these markers in biologic behavior of these lesions.

Method and material: Twenty cases of KOTs and twenty cases of DCs were selected and analyzed by Immuno histo chemistry. Immuno expression and distribution pattern were semiquantitatively scored.

Result: Most DCs, showed continuous and more than 50% staining for collagen IV in the basement membrane, whereas in most of KOTs observed discontinuous and less than 50% staining for collagen IV. MMP-9 was expressed in both epithelial and mesenchymal cells in all cases of KOTs and DCs. But expression of MMP-9 showed high score in KOTs.

Conclusion: These results demonstrate that the MMP-9 has an important role in collagen IV degradation, contributing to KOTs' behavior is more aggressive than DCs. So MMP-9 and collagen IV are important markers for determining the difference in biologic behavior of KOTs and DCs.

Biography

Elahe Soufian is an Undergraduate student of Khorasgan Islamic Azad University (Isfahan-Iran) of Dentistry. She has an oral presentation in International Periodontology Congress (2013-Iran, Tehran) and poster presentation in Oral and Maxillofacial Pathology Congress (2013-Iran, Tehran)

elahesoufian@yahoo.com