

## MMPs, biomarkers of invasion in oral cancers

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### **Introduction:**

Oral cancers are among the common malignancies and global main healthcare problems. In spite of great progresses in treatment of oral cancers over recent decades, disease outcomes have not principally improved. Tumor invasion and metastasis decrease the survival in a high percent of patients. Invasion-related biomarkers might be useful tools in prediction of patient prognosis. Matrix metalloproteases (MMPs) have an essential role in expansion and invasion of several tumors. The aim of the present study, was to assess the MMPs as biomarkers of oral cancer invasion.

### **Materials and methods:**

Available papers of last ten years were surveyed in Pubmed. The key words "biomarkers, invasion and oral cancers" were utilized. The related articles were evaluated, reviewed and summarized.

### **Results:**

We found out that several members of MMP families including MMP-1, -2, -3, -7, -9, -10, -12, are overexpressed in invasive oral cancers and their overexpression has been associated with diminished survival. Moreover, there are some MMP inhibitors that have very important role in suppression of invasion in oral carcinoma cells.

### **Conclusion:**

The findings of this study show that tumor-related changes of MMPs might be useful for diagnosis of oral cancers. Furthermore, our findings suggest that MMPs are not only significant prognostic factors but also might be potential therapeutic targets in related oral cancers.