

## **ABSTRACT**

### **The Difference of MMP-8 levels between scaling treatment and tetracycline gift on the GCF and saliva of the chronic periodontitis**

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Matrix metalloproteinase, especially MMP-8 was the key indicator related to periodontitis. MMP-8 presents in the saliva and GCF of the patient suffered from periodontitis.

The aim of the study was to compare the reduction of MMP-8 levels between the results of scaling, with and without tetracycline gel 0.7%, done on chronic periodontitis.

The samples were collected from the patients having chronic periodontitis and the patients with healthy periodontium as a control group. The GCF and whole saliva were taken before and 14 days after treatment. The GCF and saliva of the control group were taken from volunteer with healthy periodontium. The MMP-8 levels was counted by ELISA test method (Enzyme Linked Immunosorbent Assay) with ELISA reader instrument (ng/ml).

The non-parametric statistic analysis of Kruskal-Wallis test was used to compare the MMP-8 levels of chronic periodontitis and health control. The paired T test was used to compare the MMP-8 value before and after treatment, and independent sample T test to compare the reduction of MMP-8 value between scaling and combination treatment of scaling-tetracycline gel in GCF and Saliva.

This study showed that the MMP-8 levels of chronic periodontitis was higher than that of health person. Tetracycline showed a tendency to reduce the value of MMP-8 GCF and saliva in the first 14 days.

**Keywords:** Matrix metallo proteinase-8, Scaling, Tetracycline, Chronic periodontitis.