

ABSTRACT

THE DIFFERENCE OF LEVEL MATRIX METALLOPROTEINASE 8 GINGIVAL CREVICULAR FLUID ON ORTHODONTIC FIXED APPLIANCE FOR THERAPY AND ACCESSORIES PURPOSE

Aida Fitriana

Fixed orthodontic appliance used to move the teeth into the ideal position in the arch . Phenomena shows fixed orthodontic appliance used as an accessory not intended for treatment . Tooth movement process requires an enzyme activity of the enzyme matrix metalloproteinase - 8 (MMP - 8) is produced by PMN , fibroblasts , macrophages . MMP - 8 plays a very important role in the process of tooth movement , in the presence of MMP - 8 is predominantly type I collagen found in the periodontal ligament would be degraded to allow osteoclasts and osteoblasts move in the extracellular matrix The aims of this study to determine whether there are differences in the levels of MMP - 8 GCF on the use of fixed orthodontic therapy purpose and accessories with duration of use less than 6 months and more than 6 months.

Twenty- four subjects were divided into four groups: use accessories with less than 6 months , more than 6 months , therapy group with the use of less 6 months , therapy group over 6 months. Each subject taken gingival crevicular fluid samples (GCF) with superficial intrasulcular technique using paper point No. 15 for 3 minutes on the mesial and distal maxillary canines . Then performed using the ELISA kit Human MMP8 Abcam.

From the statistical analysis it appears there was no difference between the levels of MMP - 8 accessories group with the therapy group ($p > 0,05$).

From the results of this study concluded that there was no difference between therapy groups with the accessories purpose group.

Keywords : MMP - 8 , orthodontic, therapy , accessories, GCF.