

THE EFFECT OF HIGH CALCIUM MILK AND CASEIN PHOSPHOPEPTIDE-AMORPHOUS CALCIUM PHOSPHATE ON ENAMEL EROSION CAUSED BY CHLORINATED WATER

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Abstract. The aim of this study was to determine the effectiveness of high calcium milk and casein phosphopeptide-amorphous calcium phosphate (CPP-ACP) on enamel erosion caused by chlorinated water. Thirty-six bovine enamel samples without wear or caries 3x4 mm in size were placed in acrylic blocks. All specimens were randomly allocated into 3 groups ($n=12$ /group): CPP-ACP in the form of paste, Anlene™ concentrated milk and a control (no treatment). All specimens were soaked in chlorinated water (pH =5.0) at room temperature for 72 hours following by soaking in artificial saliva for 30 minutes. Then, microhardness was determined using a microhardness tester. Data were analyzed using a one-way ANOVA and paired *t*-test. The microhardness value change in the control group was significantly higher than the other groups. No significant differences were seen between the 2 study groups. High calcium milk and CPP-ACP enhanced remineralization of enamel erosion caused by chlorinated water.

Key words: casein phosphopeptide- amorphous calcium phosphate, erosion, microhardness, milk

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