

عنوان مقاله:

Remineralization of Enamel Subsurface lesions by nano- fluorohydroxyapatite

محل انتشار:

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خلاصه مقاله:

The application of Hydroxyapatite based materials in the repair of early enamel lesions has received considerable attention, but the repair and protective mechanism is still open for debate. The purpose of the research was to determine the effect of nano-fluorohydroxyapatite on defected enamel and remineralization process. In this research a synthetic nano-fluorohydroxyapatite powder was applied on enamel lesions. Subsurface lesions were prepared in human enamel using demineralization solution. The remineralized surfaces were examined using SEM, OCT (Optical Coherence Tomography), and Micro-CT. The evaluation of remineralized samples by SEM images showed the demineralized enamel surfaces were covered with synthetic powders. OCT images showed reduction in optical reflectivity after remineralization. Micro-CT results determined increase in mineral content in remineralized surfaces with FHAp. Our findings suggest that nano-fluorohydroxyapatite may contribute to the repair of demineralized enamels, hence daily usage of synthetic nano-fluorohydroxyapatite may exert a desirable effect on remineralization of defective enamels.

کلمات کلیدی:

nano-fluorohydroxyapatite, Enamel, Remineralization

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