The Effect to Apatite-containing Dentifrices on Artificial Caries Lesions

T. KANI, M. KANI, A. ISOZAKI, H. KATO, Y. FUKUOKA, T. OHASHI and T. TOKUMOTO
Department of Preventive Dentistry, Asahi University of School of Dentistry, Japan

The inorganic constituent of the biological mineralized tissue is hydroxyapatite, and initial caries progresses by decalcification of the inorganic substances. As hydroxyapatite has a very similar composition to those of biological mineralized tissues, it has tended recently to be used as a material to supplement them artificially. In the field of dentistry, studies on artificial tooth roots, apatite-containing dental cement, and artificial bone to supplement the alveolar bone are being carried out, and these have began to be used clinically. Hydroxyapatite is also capable of adsorbing protein and seems to be able to control the formation of dental plaque, and it is expected to also enhance the effect of tooth brushing.

In this study, experiments in vitro were performed on intact human enamel to examine the effect of apatite-containing dentifrices on remineralization of initial caries lesions.