



[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

ONLINE ISSN : 1880-3997

PRINT ISSN : 0917-2394

Pediatric Dental Journal

Vol. 15 (2005) , No. 2 pp.165-170

[\[PDF \(273K\)\]](#) [\[References\]](#)

Effect of three fluoride agents on remineralization and fluoride uptake on enamel lesion

Fang Yu¹⁾, Shuhei Kubo¹⁾ and Masashi Yakushiji¹⁾

1) Department of Pediatric Dentistry, Tokyo Dental College

(Received on March 29, 2005)

(Accepted on August 10, 2005)

Abstract This study is to compare the fluoride uptake of three fluoride agents and the effect of remineralization on artificial enamel lesions. Eight human third molars were all divided into four slabs. The slabs were randomly assigned to the following four groups: group A (9,040 ppm F, APF gel), group B (968 ppm F, SnF₂ home gel), group C (22,600 ppm F, fluoride varnish, FV) and a control group. After 72-hour demineralizing and 10-day pH-cycling period with the application of corresponding fluorides. The distribution of fluoride and mineral change was analyzed with EPMA and CMR respectively. There was a significant increase in the amount of F uptake after the application of the three fluoride agents compared to the control group. Group A showed an extremely greater F uptake compared to group C and B. The amount of F uptake from group C was greater than that of group B. The three tested groups showed signs of significantly greater amounts of remineralization as compared to the control group. Remineralization of group C was detected to be the greatest, followed by group A and group B, but there was no significant difference in them under statistical analysis. It can be concluded that all of the tested agents were effective in regaining mineral loss. FV may be recommended as a professional topical fluoride. It is as effective, if not more so, as traditionally used APF gel. Also 0.4% SnF₂ home gel is an efficient self-applied topical fluoride for daily use.

Key words Demineralization, Fluoride uptake, Human molar enamel, Remineralization

[\[PDF \(273K\)\]](#) [\[References\]](#)

Download Meta of Article [\[Help\]](#)

To cite this article:

Fang Yu, Shuhei Kubo and Masashi Yakushiji: Effect of three fluoride agents on remineralization and fluoride uptake on enamel lesion . *Ped Dent J* **15**: 165-170, 2005 .

JOI JST.JSTAGE/pdj/15.165

Copyright (c) 2005 by The Japanese Society of Pediatric Dentistry



[Japan Science and Technology Information Aggregator, Electronic](#)

