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BIOGRAPHY

Osama Safwat Mohamed has completed his PhD at the age of 40 years from Alexandria University, Egypt. He is the Lecturer at Pharos University. He has published more than three papers in reputed journals.

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Note:

THE EFFECT OF ZINC AND FLUORIDE ON ARTIFICIAL SMOOTH SURFACE LESIONS OF PERMANENT TEETH

Introduction: Zn maintains greater enamel surface-zone porosity, facilitating diffusion of Ca, P and F into the carious lesion; allow more subsurface remineralization to take place. Thus, it has the potential to influence both demineralization and remineralization. This study investigated the efficacy of fluoride and zinc toothpaste on enamel caries of permanent teeth *in vitro*.

Methods: Smooth surfaces of 60 sound extracted premolars were coated with a nail varnish leaving a 4x4 mm window on the buccal and lingual surface of each tooth. The teeth were immersed in demineralizing solution for 72 hours at room temperature, to create an early enamel lesion. The crowns were cut from the roots. The crown samples were further sectioned into two halves in mesio-distal direction along the central fossa. Specimens were randomly divided into two groups (I and II) (n=60), group I; was treated by daily brushing with fluoride and zinc tooth paste and group II; was treated with fluoridated toothpaste for 4 weeks. A scoring system was used for SEM assessment.

Results: In the comparison between the two groups indicated better results for group I (P = 0.0001).

Conclusions: Zinc and fluoride toothpaste has better effect on remineralization of subsurface lesion due to the presence of zinc.