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EFFECT OF NANO-HYDROXYAPATITE ON REMINERALIZATION OF ENAMEL-A SYSTEMATIC REVIEW

NITHIN M. G[1] & JOSEPH JOHN[2]

[1]Senior Lecturer, Department of Public Health Dentistry, Madha Dental College & Hospital, Kundrathur, Chennai, Tamil Nadu, India

[2]Professor & Head, Department of Public Health Dentistry, Saveetha Dental College & Hospital, Chennai, Tamil Nadu, India

ABSTRACT

The application of nano–hydroxyapatite in the repair of early carious lesion has received considerable attention. Neither the remineralization effect nor the protective mechanism has been comprehensibly investigated and has been left to an open debate still. The primary objective of this review was to evaluate the remineralization potential of a toothpaste containing nano–hydroxyapatite on early carious lesions of enamel. The Cochrane database of systematic reviews, PubMed, LILACS / BBO, MEDLINE, SCIENCE DIRECT, electronic retrieval systems and databases were selected for identification of studies. Ten in-vitro studies were found in the search, of which only 5 studies met the inclusion criteria. Of the studies included, 3 studies provided data on surface micro hardness, 2 studies for comparison of lesion depth and 2 studies provided data for comparison of loss in mineral content. Results of the review showed that nano–hydroxyapatite paste was effective in reducing the initial carious lesions of enamel and can be used as an alternative to fluoridated toothpastes.

KEYWORDS: Dentifrice, Nano-Hydroxyapatite, Enamel Remineralization