EFFECT OF FLUORIDE VARNISH ON CARIES PREVENTION OF PARTIALLY ERUPTED OF PERMANENT MOLAR IN HIGH CARIES RISK

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Abstract. The objective of this study was to measure the effectiveness of fluoride varnish as a public health intervention to prevent caries on partially erupted first and second permanent molars among 6-11 year old children at high risk for caries. In a six-month clinical trial, 105 children were randomly divided into a fluoride varnish (Duraphat®) group (117 molars) or a control group (117 molars). The chi-square test used to compare caries occurrence in each group with a 95% level of confidence (p<0.05) at the intervals of 3 months. Compared to control, fluoride varnish resulted in 79% and 77.5% caries reduction in partially erupted permanent molars at 3 and 6 months, respectively. There were statistically significant differences in caries progression between the groups at 3 and 6 months. Fluoride varnish significantly reduced carious lesions in partially erupted molars at six months among high caries risk children.

Keywords: caries prevention, fluoride varnish, high caries risk, partially erupted permanent molars