Suppression of salivary *Streptococcus mutans* and lactobacilli by topical caries preventive agents

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SUMMARY

Reduction of cariogenic bacteria, especially salivary Streptococcus mutans and lactobacilli is a valuable clinical procedure that in many ways alleviates implementation of targeted caries preventive procedures in the entire population. The aim of this study was to investigate the caries preventive values of certain preventive procedures in in vivo conditions. Four groups of subjects, each with 18 children aged from 4-5 and 10-12 years (n=72) were treated with different caries preventive agent (aminfluoride solution, Proxyt paste, chewing gum containing xylitol and fluoride and chlorhexidine solution). During a period of two months five control measurements for number of salivary Streptococcus mutans (SM) and lactobacilli (LB) were performed. At the end of the study the best result in the reduction of the bacteria was achieved by the application of Proxyt paste and daily use of chewing gum ($p<0.001$). In patients treated with this preventive procedure the number of SM was reduced by 1 class and LB to $<10^4$ CFU/ml saliva after two months of study. The results obtained indicate that professional teeth cleaning and use of chewing gum with xylitol and fluorides on daily basis can be very effective protocol for cariogenic bacteria reduction and in the individual caries prevention.

Key words: Streptococcus mutans, lactobacilli, saliva, caries prevention

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