

# Sealing of proximal carious lesions in primary teeth with children

Study in progress, not yet published.

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The aim of this split mouth design study was to assess the efficacy of resin infiltration versus fluoride treatment of early proximal carious lesions on deciduous molars. The study was undertaken in Nuuk in Greenland, where the majority of children are recognized by having very high caries progression rate (Pedersen et al., 2006). This, in spite of the fact that all children from the age of 0–18 years are enrolled in the Child Dental Health Service of Greenland, which focuses on prevention and it is free of charge. Initially, 48 children age around 7 years were selected, each having 2 or more proximal lesions on deciduous molar teeth with no or initial clinical signs of caries and radiological E1 to D1 lesion depth. Two lesions were randomly allocated to one of the two treatment regimes, resin infiltration (Kit for Infiltration, DMG, Hamburg, Germany) and Duraphat 2.26 % F- (GABA, Lörrach, Germany) -test lesion and only Duraphat 2.26 % F- (GABA, Lörrach, Germany) -control lesion.

The clinical ICDAS appearance of the selected lesions was recorded independently by two experienced clinicians before the treatments. If disagreement in ICDAS score was noted final score was obtained by consensus. Only 2 children refused the treatment and were excluded from the study. After one year the children were re-examined (n=42) clinically, and radiographs were taken (n=39). Two dentists one internal and one external scored the radiographs independently of each other using a 4 ranged scale. Intra- as well as Intra-reproducibility was expressed by unweighted Kappa. Baseline mean age of the children was 7.17(SD=0.68) and mean defs was 8.1(SD 6.9). Clinically, 31 % of the test lesions versus 67 % of the control lesions had progressed (P<0.05). Radiographically, 24 % of the test lesions had progressed versus 63 % of the control lesions (P<0.05). The clinical and radiographical therapeutic effect of resin infiltration versus fluoride treatment after 1 year was both > 30 % and highly significant.

**Resin infiltration seems promising in controlling lesion progression in proximal lesions on deciduous molar teeth.**

## Status

The results of the 1 year follow-up assessment are available since February 2009.

## Aim

This study is used for verification of the product's clinical performance.

## Source:

Ekstrand KE, Bakshandeh A. Radiographic comparison of lesion progression after infiltration, sealing and floss instructions in a higher caries risk population – 6 and 12 months follow-up. Data on file. DMG Hamburg, Germany.

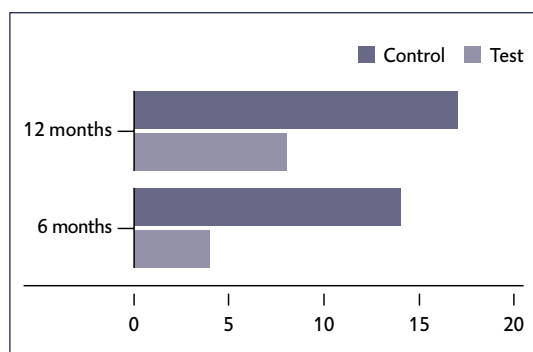


Illustration 1: Clinical cavitations after 6 and 12 months