

# Sealing manifest occlusal caries in permanent teeth -- 2.5-year results

March 17 2011

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Today, during the 89th General Session & Exhibition of the International Association for Dental Research, held in conjunction with the 40th Annual Meeting of the American Association for Dental Research and the 35th Annual Meeting of the Canadian Association for Dental Research, lead researcher V. Qvist will hold an oral presentation on a research study titled "Sealing Manifest Occlusal Caries in Permanent Teeth - 2 1/2-year Results."

This research was performed under the objective of investigating the possibility of non-operative sealing of manifest occlusal caries lesions which otherwise would have been treated with conventional restoration. This prospective, randomized study was performed in the young permanent dentition with two parallel treatment arms. The material includes 523 occlusal caries lesions in 523 patients aged 6-17 years. All lesions were assessed to be in need of operative treatment and were limited to the outer half of the dentin. Informed consent was obtained from the patients/parents.

After randomization in the ratio of 2:1, 370 resin sealants and 153 resin restorations were carried out by 72 public dentists from August 2006 to November 2009. The treatments were followed by annual clinical and radiographic control examinations. Chi-square tests were applied for statistical comparisons between sealants and restorations.

After an average observation period of 2½ years, the dropout rate was 3 percent. Of the sealants 76 percent were well-functioning, 10 percent

were repaired or renewed, and 15 percent were replaced by restorations. Of the restorations, 96 percent were well-functioning and 4 percent were extended or replaced, which was significantly different compared with the sealant group (p

Citation: Sealing manifest occlusal caries in permanent teeth -- 2.5-year results (2011, March 17) retrieved 6 May 2024 from

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