

0959 ART restorations and sealants in Chinese schoolchildren – five-year results

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Objectives: To evaluate on a longitudinal basis ART restorations and sealants provided to children in a school environment in China. **Methods:** A total of 294 ART restorations in 197 children and 191 fissure sealants in 140 children were placed by five middle-level dentists in four secondary schools in Deyang, Sichuan Province, western China. Standard instruments and procedures for ART were used. The restorative material used was a high-strength glass-ionomer (Ketac-Molar, 3M/ESPE). The treatment was evaluated annually after placement over a period of 5 years by the same examiner who had not been involved in the placement of the restorations or sealants using explorers and mouth-mirrors. At the 3- and 5 year examination an independent external examiner evaluated the restorations using USPHS criteria. **Results:** The cumulative 1-, 3- and 5- year survival rates of small Class I restorations (<half occlusal width) were 99%, 92% and 83% respectively. The corresponding figures for large Class I restorations (>half occlusal width) were 90%, 77% and 63%. Success rates for the restorations at 5-years were higher using USPHS criteria. After 1-, 3- and 5 years, the cumulative survival rates for partially or completely retained sealants were 90%, 72% and 63%. 12% of the teeth that had been sealed developed fissure caries over the 5 years but these only involved teeth where the sealants had been lost. **Conclusions:** The 5-year survival rates for treating tooth decay in Chinese school children with the ART approach was shown to be appropriate and effective particularly in small Class I lesions. ART sealants show promising results but lost sealants should be replaced to confer lasting caries prevention.

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