

Sealing of restorations with marginal defects does not affect their longevity

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Abstract

Purpose: To evaluate sealed amalgam and resin-based composite restorations after 12 years to determine whether sealing minor defects (micro-repairs) enhanced the longevity of restorations. Methods: 34 subjects aged 18-80 were recruited. This sample group underwent 137 restorations, including 51 resin-based composite (RC) and 86 amalgam (AM) restorations. Existing restorations with localized, marginal defects were assigned to one of two groups: (a) the Sealing group (n=48, 27 AM; 21 RC) or (b) the Control group (n=89, 59 AM; 30 RC). The quality of each restoration was scored according to the modified USPHS criteria by two examiners at the beginning of the study and after 1-5, 10, and 12 years. Kaplan Meier survival curves were created and a Cox regression was applied to investigate survival variables. Mantel Cox, Wilcoxon, and Friedman tests were performed for comparisons within groups. Results: After 12 years, no statistically significant differences were observed for the variables "restorative material" (P=0.538) or "sealing yes/no" (P=0.136) with respect to the longevity of the restorations. All groups behaved similarly with regard to marginal adaptation, secondary caries, and tooth sensitivity (P >= 0.05). Cumulatively, after a 12-year observation period, sealing minor restoration defects did not affect the longevity of the restorations.

Palabras clave

KeyWords Plus: [POSTERIOR COMPOSITE RESTORATIONS](#); [10-YEAR CLINICAL-TRIAL](#); [NATIONAL DENTAL PBRN](#); [SECONDARY CARIES](#); [AMALGAM RESTORATIONS](#); [GAP SIZE](#); [REPAIR](#); [SEALANTS](#); [CRITERIA](#); [REPLACEMENT](#)

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