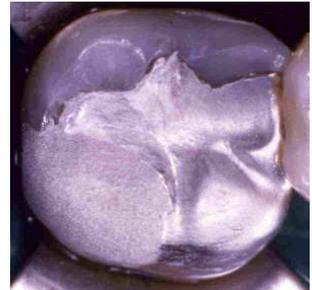


Survival of Repaired and Recemented Restorations (7/04)

Smales RJ, Hawthorne WS. Long-term survival of repaired amalgams, recemented crowns and gold castings. *Oper Dent* 2004;29:249-253.

Very little long-term clinical data exists to support the effectiveness of the repair of defective restorations. The vast majority of studies evaluating restoration repairs have been laboratory studies. The purpose of this retrospective longitudinal clinical study was to compare the long-term survival rate of repaired versus replaced amalgam restorations and recemented crowns and gold castings versus initially cemented similar restorations. Private general dental practitioners treated adult subjects at three city practices. Restorative treatment data were obtained from the records of 100 adult patients with a continuous treatment history of at least 10 years. Treatment data for amalgam restorations, crowns (i.e., gold, porcelain, metal-ceramic) and gold castings (i.e., inlays, onlays, partial veneers) were entered into a database. Survival estimates were determined at 5, 10, and 15 years. There was no statistical difference between the survival of replaced and repaired amalgams. Significantly lower survival rates were found for recemented crowns and gold castings compared with initially cemented restorations.



DIS Comment: The diagnosis of defective restorations is challenging and controversial.¹ Primary reasons for replacement of restorations include secondary caries, bulk fracture of the restoration, marginal defects, and esthetic mismatch.² Advantages of repairing defective restorations include a reduction in the loss of additional tooth structure, pulpal damage, pain, and expenses. However, problems still exist in achieving adequate access for caries removal and placement of repair material. Most laboratory studies have reported significantly reduced bond strengths for repaired materials.^{3,4} Due to the lack of clinical evidence, dentists may be hesitant to repair defective restorations. The authors in this study concluded that the repair of local defects in amalgam restorations was an effective alternative to restoration replacement, especially up to five years. The recementation of dislodged crowns and gold castings was less effective over five years. Many of the crowns and gold castings were recemented with zinc phosphate cement, however, and the authors speculate that stronger “modern” cements (e.g., resin cement) may have enhanced survivals. More long-term clinical studies are needed with these and other repaired restorative materials (e.g., composite resin) to determine the efficacy of repaired versus replacement procedures.

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