

The atraumatic restorative treatment (ART) approach to restoring primary teeth in a standard dental clinic

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Objectives. The aims of this study are to assess the feasibility of the Atraumatic Restorative Treatment (ART) approach in primary teeth and to compare the ART approach with traditional amalgam restorations in primary molars.

Methods. This study was conducted in a paediatric dentistry clinic in Kuwait between April 1999 and December 2001. The ART and amalgam restorations were placed randomly on comparable pairs of primary molars, if available. In addition, the ART approach was used for other primary teeth that had no pulpal involvement and no perceived pain before treatment. The restorations were assessed by both the ART evaluation criteria and USPHS criteria in August-September 2000 and in August-December 2001. The mean follow-up period for the restorations was 8.3 months in the first assessment (2000) and 22 months in the second assessment (2001). The assessment was possible for 35 children (mean age = 5.7 years), 18 of whom had comparable pairs (n = 35 pairs) of restorations in their primary molars. In addition, 48 other ART restorations were assessed in 2000 and 42 in 2001.

Results.

In a 2-year follow-up, 89.6% of all ART restorations were considered successful. The failure rate of the comparable pairs of ART and amalgam restorations was 5.7%. There was no significant difference in success rate between ART and amalgam techniques.

Conclusions. Based on a 2-year follow-up evaluation, the class I ART restorations seemed to have a high success rate, indicating the appropriateness of the ART approach in primary teeth.