

# **Influence of the cavity-size on the survival rate of proximal ART restorations in primary molars**

KEMOLI, ARTHUR MUSAKULU; AMERONGEN, WILLEM EVERT Van

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## **Abstract:**

To evaluate Aim. the influence of the size of proximal cavities on the survival rate of the atraumatic restorative treatment (ART) restorations. A total of 804 children, aged 6–8 years, from a low Design. socio-economic community, with an ART restorable proximal carious lesion in their primary molars, participated. Over a 3-week period, three ‘experienced’ and four ‘inexperienced’ operators randomly paired with four ‘experienced’ and four ‘inexperienced’ assistants, made the restorations at site using hand instruments. They randomly used Fuji IX, Ketac Molar Easymix and Ketac Molar Aplicap glass ionomer cements to restore the cavities, under randomly selected rubber dam and cotton roll isolation methods. The fillings were independently evaluated by nine trained and calibrated evaluators. After 1 year, the survival rate of the fillings evaluated in Results. the study was 44.8%. Irrespective of the other factors involved, restorations with the highest survival rate were of size between 2 and 3 mm (mesio-distal, bucco-lingual, and depth) or volumes 10.0–19.9 mm<sup>3</sup> (Chi-square,  $P = 0.002$ , KM mean survival of 345 days). While the survival rates for class II ART restorations Conclusions. were still low, the choice of medium-sized proximal cavities gave better survival rates for this technique