

Abstract:

This was to evaluate the influence of two methods of tooth-isolation on the survival rate of proximal ART restorations in the primary molars. **METHODS:** The study was conducted in two rural divisions in Kenya, with 7 operators randomly paired to a group of 8 assistants. A total of 804 children each had one proximal cavity in a primary molar restored using the ART approach. During restorations 2 isolation methods, rubber dam or cotton wool rolls, and 3 brands of glass ionomer cements were used by the operators. The restorations were then followed for a period of 2 years. **STATISTICS:** SPSS 14.0 was used to analyse and relate the data obtained to the method of isolation used. **RESULTS:** After 2 years 30.8% of the ART restorations had survived. Higher survival rates of the restorations were obtained when using rubber dam irrespective of the GIC material or the operator. **CONCLUSION:** Generally the survival rate of the proximal restorations in the present study was very low, but the use of rubber dam resulted in a higher survival rate of the restorations.