

Selecting suitable proximal carious lesions in primary molars for restoration using ART technique.

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Abstract:

OBJECTIVE: To determine the examiner's accuracy in selecting proximal carious lesions in primary molars for restoration using the atraumatic restorative treatment (ART) approach.

BASIC RESEARCH DESIGN: Intervention study. **CLINICAL SETTING AND**

PARTICIPANTS: A total of 804 six to eight year-olds from 30 rural schools in Kenya participated in the study. **INTERVENTION:** Three examiners selected a total of 1,280 suitable proximal carious lesions in primary molars after examining 6,002 children from 30 schools randomly selected out of 142 schools in two divisions. Seven operators randomly paired on a daily basis with eight assistants restored the lesions. An explanation was provided for any cavity that was not restored. Pre-and post-operative radiographs of the cavities were also taken for evaluation.

MAIN OUTCOME MEASURES: The examiner's choice of suitable proximal cavities restorable using the ART approach was related to the decision made to either restore or not during the operative stage. The radiographic findings of the selected cavities were also compared to the decision made by the operator. The results obtained were used to determine the examiner's accuracy in selecting suitable proximal cavities for restoration using the ART approach. **RESULTS:** The majority of the children recruited in the study were excluded due to absenteeism, pulpal-exposure or anxiety during the operative stage. Only 804 children received one restoration in their primary molars. The examiner's accuracy in selecting suitable ART-restorable cavities clinically was 94.9% and based on radiographic analysis was 91.7%.

CONCLUSIONS: A trained and diligent examiner has a very good chance of selecting proximal carious lesions restorable with the use of ART approach, without the threat of dental pulpal-involvement during the excavation of caries.