

Title: The Use of Pedo Jacket Crowns in the Treatment of Early Childhood Caries: A Prospective Clinical Study.

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Background: Presently available preformed esthetic crowns for the restoration of primary anterior teeth affected by early childhood caries have numerous drawbacks, especially when used in very young pre-cooperative children.

Objective: In a prospective longitudinal clinical study, to determine if Pedo Jacket Crowns are a viable interim treatment.

Methods: Pedo Jacket crowns were placed in children with carious maxillary primary incisors between ages 1 and 5 years by 5 clinicians who were calibrated with respect to the placement and assessment of the crowns. For cementation, a resin-modified glass ionomer material was used. The follow-up period was 1 year. The crowns were evaluated clinically at 6 and 12 months post-placement, with a final radiographic evaluation at 12 months. Factors such as ease of use, child behaviour at the restorative appointment, presence of recurrent decay, wear, partial or complete loss of the crown, color stability, debris and plaque indices were evaluated. An overall clinical outcome score was computed from the above factors to determine if the crown was intact, had moderate defects requiring only monitoring or minor repair, or was a failure.

Results: A total of 59 children are enrolled in the study. Of these, 38 have completed the 1 year follow-up period. Preliminary results indicate that the crowns are easy to use even in uncooperative children. The overall clinical success is 83%. The colour stability, wear, debris and plaque accumulation are comparable to other restorations in the mouth. In approximately 5% of the children, the crowns show marked color change, wear and partial/complete loss of the crown. Those failures were associated with poor cooperation at the time of placement of the crowns, poor oral hygiene and/or operator error.

Conclusions: These preliminary results suggest that Pedo Jacket crowns are a viable alternative for the restoration of carious primary anterior teeth, especially in pre-cooperative children.