

VALIDITY OF PREOPERATIVE RADIOGRAPHIC MEASUREMENTS AND STAINLESS-STEEL CROWN SIZE SELECTION IN PEDIATRIC PATIENTS: A CLINICAL EVALUATION.

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Abstract:

Background: SSCs are prefabricated, offering a convenient and cost effective full-coverage option for patients and clinicians. This also presents sizing challenges in obtaining the best fit. Size selection is based on trial and error, that also reproduces pre-treatment proximal contacts. If a single tooth requires multiple crowns to obtain the “best fit,” this can increase procedural time, decreasing efficiency and potential to increase waste. Some crown manufacturers do not have instructions for use for reprocessing and are single use only.

Aim: To determine pre-treatment radiographic measurement of coronal and cervical to predict stainless steel crown size utilized in clinical setting

Methodology: Children between the age group of two to eight years, requiring full coronal restoration, undergone pulp therapies and availability of preoperative radiographs were included in the study. Preoperative radiographs coronal measurement and cervical linear radiographic measurements were obtained. Using these values prediction tables for SSC was used for size selection. Then these SSCs were selected accordingly. An experienced pediatric dentist confirmed the adaptation of the crowns both before cementation and after cementation. Analysis was done to see whether prediction using coronal measurement or cervical measurement gave fit in most of the cases.

Results: Preoperative cervical measurements showed more appropriate stainless steel crown size selection when compared to coronal measurements, but were not statistically significant.

Conclusion: Cervical measurements are effective in stainless steel crown size prediction. This is clinician friendly selecting during the try-on phase and also minimizes waste.