

## عنوان مقاله:

Evaluation of Shears Strength of Dowel Amalgam and Post-amalgam in Root Canal-treated Teeth

## محل انتشار:

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## خلاصه مقاله:

Introduction: Amalgam, which can be applied with or without dowel, is one of the commonly used restorative materials for core restoration in pulpless teeth. The current study aimed to compare the shear strength of amalgam cores with and without dowel. Methods: A total number of 20 recently extracted mandibular premolars were assigned to two groups of 10 equal specimens, including group I: dowel amalgam restored with prefabricated dowel and amalgam core and group II: post-amalgam restored with amalgam as a post and core. All Specimens were stored at humidity and room temperature prior to testing. Each specimen was carefully placed in a special jig at a 90-degree angle to the axis of teeth and subjected to a load that was recorded in kgf on a Zwick/material testing machine at a crosshead speed of 0.5 mm/min until failure. Independent T-test was used to compare the results. Results: Based on the obtained results, the mean shear strengths were reported as  $37.7 \pm 10.49$  and  $16.8 \pm 6.37$  kgf for dowel amalgam and post-amalgam, respectively. There was a statistically significant difference between the two groups ( $P < 0.0001$ ). Conclusions: The obtained results demonstrated a significant difference between the two groups. Accordingly, the use of dowel with amalgam to restore pulpless teeth has higher compressive strength, as compared to the use of post-amalgam

## کلمات کلیدی:

Dowel amalgam, Post Amalgam, Shear strength

## لینک ثابت مقاله در پایگاه سیویلیکا:

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