No.

IN NEED OF INGENIOUS: BIODENTINE AS A ROOT FILLING MATERIAL

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BIODENTINE IS A NEWLY DEVELOPED MATERIAL, AND ITS CLINICAL APPLICATIONS INCLUDE: DENTINE REPLACEMENT AS CORONAL RESTORATION, REPAIR OF ROOT PERFORATION, AND VITAL PULP THERAPY. THE USE OF BIODENTINE AS A ROOT FILLING MATERIAL HAS NOT YET BEEN STUDIED.

AIMS

- **To evaluate the fracture resistance (compressive strength) of permanent teeth after filling the root canals with Biodentine or gutta-percha.**
- **Record the type of fracture in filled teeth when loaded to failure.**

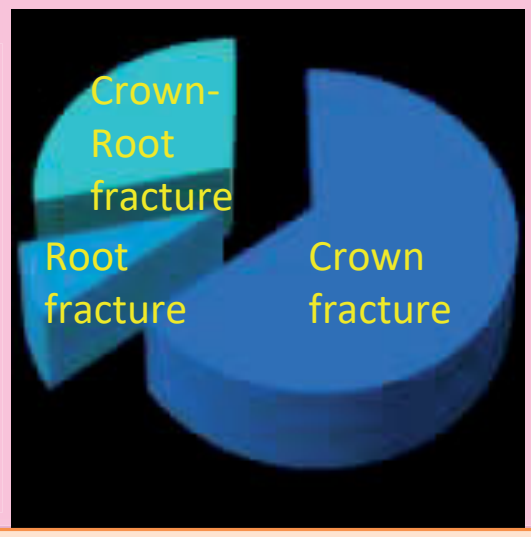
METHODOLOGY

Twenty extracted mandibular first premolar teeth were randomised into two groups: Biodentine and gutta-percha. All teeth were prepared to size 70 K-file at the apex. In one group, gutta-percha was placed as far as the cementoenamel junction; in the other, Biodentine was used to fill the canal to the CEJ. Both groups received composite as coronal restoration. To decide on the best method of determining the maximum compressive strength endured by each sample prior to fracture, a static loading test was used.

RESULTS

There was no significant difference in the fracture resistance (compressive loading) between the Biodentine and gutta-percha groups.

Sample Group	Mean (In Newtons)	Standard Deviation
GUTTA PERCHA	1418.571	263.1444
BIODENTINE	1692.625	294.5383



CONCLUSIONS

This study suggests that Biodentine should be further investigated for its uses as a root filling material.