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An in vitro stereomicroscopic evaluation of bioactivity between neo mta plus, pro root mta, bio dentine & glass ionomer cement using dye penetration method**Mohmed Isaqali Karobari***Universiti Sains Malaysia, Malaysia*

The ideal root end filling material should form a tight seal in the root canal by adhering to the cavity walls. Several materials have been used for root end filling. The present study aims to find out and compare the bioactivity of Neo MTA Plus, Pro Root MTA White, BIODENTINE & glass ionomer cement as root end filling materials using 1% methylene blue as tracer. Materials and methods: 80 extracted human permanent maxillary anterior teeth were used in the study. They were divided into four groups. Specimens were sectioned transversely in the cervical area to separate the crown from the root. The root canal was obturated with gutta percha and zinc oxide eugenol sealers. Thereafter, each sample was resected apically by removing 3 mm of the apex and filled with different materials. Samples were kept in buffering solution at 37 °C until the recommended evaluation periods. The specimens were then suspended in 1% methylene blue for 24 h, prior to the analysis. The teeth were then sectioned, and dye penetration was examined, photographed, and evaluated under a stereomicroscope. Results: Vertical dye penetration showed significant differences across different groups. The minimum dye penetration was seen in Neo MTA plus followed by BIODENTINE, Pro Root MTA and maximum in GIC. There was no significant difference in dye penetration between Neo MTA plus and BIODENTINE both at fifteen days and one-month intervals. Conclusion: The present study suggests Neo MTA plus and BIODENTINE should be the preferred material for root end filling.

Biography

Dr. Mohmed Isaqali Karobari is currently an Adjunct Faculty at Saveetha Dental College & Hospital, SIMATS University, Chennai, India, and Ph.D. Scholar in Endodontics at the Conservative Dentistry Unit, Faculty of Dentistry, University Sains Malaysia, Malaysia. Dr. Karobari is working on root and canal morphology in permanent dentition, several national and international research projects in the field of dentistry, research consultant, and scientific reviewer in several international Journal

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