



An *in-vitro* comparative study to evaluate the sealing ability of three materials used to repair the furcation perforation

Adnan Habib

College of Dentistry, Saudi Arabia

Objective: The purpose of this study was to evaluate the sealing ability of EndoSequence Root Repair Material, Mineral Trioxide Aggregate, and glass ionomer cement in repair of furcal perforation.

Materials and Methods: Thirty extracted mandibular molars were selected. After access cavity preparation of each molar artificial perforation was made directly in the center of the pulp chamber floor. The teeth were randomly divided into three groups (N=10) according to the used root repair material. The perforation sites were repaired with MTA (G1), EndoSequence(G2) and glass ionomer cement (G3). The access opening of all teeth was filled with composite. Then all teeth were immersed in 2% methylene blue for 24 hours and sectioned longitudinally to evaluate the maximum apical extent of dye leakage. Data were collected and analyzed statistically using ANOVA, Bonferroni, Kruskal-Wallis and Mann-Whitney tests (P= 0.05).

Results: The less mean value of dye penetration was observed with MTA follow by Endosequence and GIC. There was significant difference among root repair materials in relation to dye penetration. There was no significant difference between MTA and Endosequence, while both of MTA and Endosequence were significantly better than GIC in sealing the perforation site.

Conclusion: Mineral Trioxide Aggregate and Endosequence root repair material showed a similar dye micro leakage and had a better sealing ability when compared to GIC in this in-vitro study.

Biography

Adnan Habib is working as an Associate Professor at the Department of Restorative Dental Sciences, Faculty of Pharmacy and Dentistry, Buraydah Colleges, Al Qassim, Kingdom of Saudi Arabia.



28th Global Summit Expo on Dental Science and Oral Hygiene
Webinar | June 08-09, 2020

Citation: Adnan Habib, *An in-vitro comparative study to evaluate the sealing ability of three materials used to repair the furcation perforation*, Dental Science 2020, 28th Global Summit Expo on Dental Science and Oral Hygiene, Webinar, June 08-09, 2020, pp. 01.