ABSTRACT

Background: Microleakage around dental restorative materials is a major problem in clinical dentistry. Class V restoration have a greater tendency to microleakage. Composite resin and resin modified glass ionomer cement (RMGIC) are restorative materials for class V. Different restorative materials have a different composition, setting reaction and nature of physical and/or chemical bonds with the dental tissues. Purpose: to compare the microleakage of resin modified glass ionomer and fluoride containing-composite resins. Materials and Methods: 30 maxillary first premolars were randomly divided into three groups. Class V cavities were prepared and the cavities were restored with composite resin (Group 1), fluoride containing-composite resin (Group 2), RMGIC (Group 3). The teeth were subjected to 0.5% methylene blue dye penetration followed by buco-palatal sectioning. Dye penetration was recorded at gingival margin. The cut sections were evaluated under a digital microscope and the data was analyzed with Mann Whitney test. Results: There is no significant difference between group 1 and group 2. Group 3 has significant difference when compare to group 1 and 2. Conclusion: RMGIC showed less microleakage than fluoride containing-composite resin.

Key words: microleakage, composite resin, Resin Modified Glass Ionomer Cement (RMGIC), class V restoration.