Effect of Liners on Microleakage in Class II Composite Restoration

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This study was carried out to evaluate the microleakage of Class II cavities restored with various types of lining materials. Four types of composite resins (Esthet-X-Denstply, USA, Filtek (TM) Z350-3M ESPE, USA, Beautifil- Shofu, Japan and Solare P-GC, Japan) were used and the lining were the Fuji IXGP (GC, Japan), the Beautifil flow (Shofu, Japan), the Filtex (TM) Z350 flow (3M ESPE, USA) and the Esthet-X flow (Denstply, USA). All the specimens were thermocycled and immersed in 0.5% basic fuschin dye for 24 h. The microleakage was scored using the ISO microleakage scoring system. The data were entered using SPSS version 12.0 and analyzed using STATA software programme. This study showed that none of the materials used in this study was able to eliminate microleakage. However, it was shown that the glass ionomer cement was better in reducing the incident of microleakage at the cervical margin. Among the flowable composite resin, Filtex (TM) Z350 flow showed less microleakage at the cervical margin.

Cervical Margin; Class II Cavities; Flowable Composite Resin; Glass Ionomer Cement; Microleakage

Article

Sains Malaysiana

0126-6039

Universiti Kebangsaan Malaysia

2013

English