عنوان مقاله:

Comparison of Microleakage of Self-etch and Total-etch Bonding Agents in Primary Molar Class II Composite Restorations

محل انتشار:

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خلاصه مقاله:

Introduction: This study evaluated microleakage of flowable and conventional composite in primary molar class II restorations using self-etch and total-etch bonding agents. Methods: Class II standard cavities were prepared on proximal surface of 48 primary molars. These cavities were restored using GrandioFlow and Grandio composites and Futurabond DC and Solobond M as bonding agents. Teeth apices were sealed by wax and two-layer nail varnish was applied up to 1mm of restoration margins. Samples were subjected to thermocycling, stained by silver nitrate solution and sectioned mesiodistally. Microleakage was measured from the tooth-restoration margin to end point of dye penetration using a stereomicroscope with a 0-3 scale. Microleakage scores were analyzed using Kruskal-Wallis test in 4 groups and paired comparisons were performed using Monte Carlo test. Results: Microleakage was seen in all composite and bonding agent groups. Pairwise comparison showed no significant difference regarding the microleakage between groups (P>0.05) . Conclusion: Gradioflow as a flowable composite and Futurabond DC as a self-etch bonding agent both showed acceptable results in regard to microleakage. Considering the ease of application of flowable composites compared to conventional ones and shortening the treatment both flowable composites and self-etch bonding agentshave showed promising results in pediatric dentistry

کلمات کلیدی:

Bonding Agents, flowable composites, Microleakage, Primary molars