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Karut F., Abdine J. MICROLEAKAGE AROUND CLASS V RESTORATIONS AFTER ULTRASONIC SCALING: A COMPARATIVE STUDY

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Relevance. The effectiveness of Class V restorations is critically influenced by micro leakage, which can lead to restoration failure and secondary caries. Ultrasonic scalers are widely used in dental practice for calculus removal, yet their impact on the integrity of these restorations is not fully understood. This study investigates the influence of ultrasonic scaling on micro leakage in Class V restorations from various manufacturers, examining whether the differences in material composition and cost affect their performance. Understanding these dynamics is essential for optimizing restorative strategies and ensuring the longevity of dental treatments.

Objective: the aim of the present study is to evaluate the effect of ultrasonic scaling on the marginal microleakage of class V restorations comparing the various materials used for this aim.

Materials and methods. Extracted teeth (N=32) with class V cavities were selected for the study. Each 4 samples were filled with one of the filling materials and subjected to a great load of ultrasonic scaling while a caries marker was used during the filling process. The samples were photographed with a macro lens camera for further visual evaluation of the results.

Results and their discussion. As a result of a visual examination of the samples, microcracks were observed in some of the materials. The penetration of the dye was different concerning the various fillings.

Conclusion. Type of restorative material has a significant influence on microleakage around Class V restorations.