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# Microleakage in Class V Restorations Prepared with Er:YAG Laser.

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Due to limited information available about the quality of the restoration when the cavity is prepared and etched with laser, in this "in vitro" pilot study we decided to examine the microleakage in class V composite resin restoration prepared conventionally and with Er:YAG Laser. Twelve extracted human premolar teeth, wich had been stored in 0.9% NaCl solution, were divided equally into three groups. Group I was prepared with a conventional high-speed drill and acid etched with 35% phosphoric acid. Group II was prepared with Er:YAG Laser and acid etched with 35% phosphoric acid and Group III was prepared and etched with Er:YAG Laser. Dentin adhesive system was applied and the cavity restored with photo-activeted composite resin. After restoration, the specimens were stored for 7 days in distilled water. After storage all the restoration were polished. Subsequently the specimens were thermally stressed and immersed for 8 hours in a 50% silver nitrate solution. They were sectioned and observed under optic microscopy. Leakage occurred in 50%, 75% and 100% of the specimens in groups I, II and III respectively. The results were analyzed with Kruskal-Wallis, a nonparametric test. Comparison of the three groups revealed no statistically significant difference.