2568 **Clinical Evaluation of an All-In-One Self-Etching Dental Adhesive**

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Objective: The purpose of this randomized clinical trial was to evaluate the clinical performance of an all-in-one self-etching dental adhesive (iBond, Heraeus Kulzer) versus that of a multi-step total-etch dental adhesive (Gluma Solid Bond, Heraeus Kulzer) when applied to non-carious Class V lesions. Methods: Lesions were characterized preoperatively relative to height, width, depth, percent of margin in enamel, internal angle, and degree of sclerosis. Fifty-five non-carious Class V lesions were randomly assigned to two treatment groups according to the adhesive used: Gluma Solid Bond (n=27) or iBond (n=28). Tooth preparation consisted of roughening the exposed walls of the lesion with a diamond instrument. No retentive grooves or bevels were used. Durafill VS (Heraeus Kulzer) was used as the restorative material. Adhesives and composite were applied according to manufacturer's directions and light-cured using a Translux Energy unit (Heraeus Kulzer). The restorations were evaluated at baseline and at 18 months for retention, secondary caries, marginal adaptation/integrity, and marginal discoloration using modified USPHS criteria for clinical evaluation of dental restorations. Data were analyzed using Fisher Exact's Test (p=0.05) for significant differences between treatments. Results: Overall lesion characteristics were similar, and all baseline scores were alfa for all restorations in both treatment groups. The 18-month recall rate was 95%. No retention failures or secondary caries were observed, and all restorations were clinically acceptable. No significant differences were detected between Gluma Solid Bond and iBond regarding marginal adaptation/integrity (p=0.09). iBond presented significantly more marginal staining than Gluma Solid Bond (p=0.003). Conclusions: Despite a higher incidence of marginal staining, the all-in-one self-etching dental adhesive presented 18-month clinical performance similar to that of a multi-step total-etch dental adhesive, i.e., no clinical failures as determined by modified USPHS criteria. Supported by Heraeus Kulzer. rittera@dentistry.unc.edu

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