

Enamel demineralization around two different bracket adhesive systems: An *in vivo* study

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Objectives: To compare the enamel demineralization around the two precoated adhesive bracket systems, APC Flash-Free and APC PLUS, in clinical settings.

Material and Method: This prospective experimental *in-vivo* study includes 40 premolar teeth, which are planned for extraction due to orthodontic purposes. They were divided into two groups (Group A; n=20 Bonded with APC Flash Free ceramic bracket and group B; n=20 Bonded with APC Plus ceramic bracket). Then, the teeth were extracted, sectioned, and examined under the Scanning Electron Microscope (SEM) to evaluate the amount of demineralization from the enamel surface to the deepest point.

Results: findings revealed that the mean values of demineralization under SEM were significantly higher in APC Plus compared to APC Flash Free (149.95 μm vs. 112.96 μm , respectively) ($P < 0.05$). The difference between the two systems was mainly found in the middle part of the facial surfaces, while there were no differences between the two systems in the proximal parts.

Conclusion: The enamel demineralization around APC Flash free adhesive bracket system was significantly less than that of APC plus Adhesive bracket system.

Biography:

Dr. Almosa completed his dental education at King Saud University, Riyadh, Saudi Arabia, followed by orthodontic training and PhD at University of Gothenburg, Sweden. He is currently Assistant Professor in Orthodontic department at King Saud University in Riyadh