Influence of calcium hydroxide dressing on the adhesion of endodontic sealers to root canal dentine

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The aim of this study was to evaluate the interference of a calcium hydroxide dressing on the adhesion of MTA Fillapex, Sealapex, and AH Plus sealers to root dentine. Sixty extracted human roots were cross-sectioned at the coronal, middle, and apical thirds. Specimens were divided into six groups: G1-MTA Fillapex; G2-Sealapex; G3-AH Plus, whose canals were previously dressed with calcium hydroxide for 21 days and groups 4, 5, and 6 (controls), no dressing was used. After 7 days, specimens were subjected to push-out tests. Data were analysed by ANOVA and Tukey tests ($\alpha = 5\%$). Fracture modes were classified as adhesive, cohesive or mixed. AH Plus had the highest bond strength values in all root thirds (P < 0.05), and use of intracanal dressing negatively affected the bond strength (P < 0.05). MTA Fillapex and Sealapex presented results similar to one another in all thirds (P > 0.05), and use of calcium hydroxide dressing did not affect the bond strength of these materials. Fracture modes differed between groups. Calcium hydroxide did not affect the adhesion of Sealapex and MTA Fillapex, but negatively affected the bond strength of AH Plus. AH Plus presented higher bond strength than MTA Fillapex and Sealapex in all thirds. Mixed and adhesive fractures were predominant for AH Plus and MTA Fillapex, respectively.

Palavras-chave: Adhesion; calcium hydroxide; MTA.