



Title	Bonding of Resin-modified glass ionomer-based adhesive to dentine
Author(s)	Hamama, HH; Yiu, CKY; Burrow, MF
Citation	The 100th FDI Annual World Dental Congress, Hong Kong, China, 29 August-1 September 2012. In International Dental Journal, 2012, v. 62 suppl. 1, p. 70, abstract FC093
Issued Date	2012
URL	http://hdl.handle.net/10722/186503
Rights	Creative Commons: Attribution 3.0 Hong Kong License

Bonding of Resin-Modified Glass Ionomer-based Adhesive to Dentine

*Hamdi Hosni Hamama, Cynthia Kar Yung Yiu, Michael Francis Burrow
Faculty of Dentistry, Hong Kong University, Hong Kong, China*

Objectives: To compare the effect of conditioning dentine with either 37% phosphoric acid for 5 s or 10% polyacrylic acid (PAA) for 10 s on microtensile bond strength (ITBS) of resin-modified glass ionomer based-adhesive to dentine and micro-morphology of the bonded interface.

Methods: Twenty sound permanent third molars were randomly divided into two groups, according to the conditioning method. Group 1: 37% phosphoric acid and Group 2: 10% PAA were used. In each group, five molars were subjected to morphological analysis using scanning electron microscopy (SEM); while the remaining five were used for ITBS testing.

Results: SEM revealed improved resin infiltration in Group 1, compared to Group 2. The t-test showed that ITBS of Group 1 was significantly higher than Group 2 ($p < 0.001$).

Conclusion: Conditioning using 37% phosphoric acid prior to application of resin-modified glass ionomer-based adhesives seems to achieve better bonding to normal dentine than 10% PAA.