



Title	Microtensile bond strength of two different adhesive systems to dentin (an in vivo and in vitro study)
Author(s)	Belli, S; Unlu, N; Ozer, F; Pereira, PNR; Tay, F; Pashley, DH
Citation	79th General Session and Exhibition of the International Association for Dental Research, Chiba, Japan, 27-30 June 2001, v. 80 n. Sp Iss
Issued Date	2001
URL	http://hdl.handle.net/10722/53891
Rights	Creative Commons: Attribution 3.0 Hong Kong License

Content-type: text/html

Mail form to: IADR, 1619 Duke Street, Alexandria, VA 22314-3406, USA (FAX SUBMISSIONS WILL BE REFUSED.)

Type perfect original of abstract here:

Microtensile bond strength of two different adhesive systems to dentin (an *in vivo* and *in vitro* study). S. BELLI*, N.ÜNLÜ, F. ÖZER, P.N.R.PEREIRA, F. TAY, D.H. PASHLEY (Univ. of Selçuk, Konya, Türkiye; Medical College of Georgia, Augusta GA)

486

The purpose of this study was to evaluate the microtensile bond strengths of a resin-modified glass-ionomer system (Fuji Bond LC), and a self etching adhesiv resin system (Liner Bond 2V) *in vivo* and *in vitro*. *In vivo* sample preparation: 8 third molar nonfunctioning teeth scheduled for extraction were used. Standard MOD cavities were prepared and restored with the two adhesive systems followed by Clearfil AP-X resin composite. The teeth were extracted after 24 hours and 6 months. *In vitro* sample preparation: 8 extracted third molar teeth were used. Standard MOD cavities were prepared and treated as *in vivo* samples and stored in artificial saliva. All the samples were prepared for microtensile bond strength test using "nontrimming " technique. Microtensile bond strengths were determined after 24 hours and 6 months. The results were analyzed with Mann Whitney-U Test. The fracture sites and interfaces were observed using LM, SEM and TEM.

Groups		n	24 Hours Mean ± S.D.(MPa)	n	6 Months Mean ± S.D.(MPa)
Fuji Bond LC (FB LC)	<i>in vivo</i>	11	17.2 ± 80.7 ^a	11	21.5 ± 9.6 ^b
	<i>in vitro</i>	10	23.9 ± 7.4 ^b	10	26.4 ± 5.0 ^b
Liner Bond 2V (LB 2V)	<i>in vivo</i>	14	17.2 ± 4.2 ^a	14	37.1 ± 12.8 ^b
	<i>in vitro</i>	10	35.9 ± 8.2 ^c	10	25.4 ± 11.0 ^b

FB LC bond strength increased ($p < 0.05$) 25% *in vivo* but only 1% *in vitro* (not sig.). LB 2V bond strength increased ($p < 0.05$) 215% *in vivo* but fell 30% ($p < 0.05$) *in vitro*. FB LC gave good bond strengths to dentin *in vivo* or *in vitro* over 6 months, while LB 2V performance was less consistent. Supported, in part, by grant DE 06427. sbelli@selcuk.edu.tr

For Office Use Only: (1) Special Advertising (2) Symposium/Workshop (3) Fellowship (4) IADR Exhibit (5) IADR Exhibit (6) IADR Exhibit (7) IADR Exhibit (8) IADR Exhibit (9) IADR Exhibit

5. Area of Review (check only one):

- (1) Behavioral Sciences/Health Services Research
 (2) Behavioral Sciences/Oral and Maxillofacial Pathology

10. List five descriptors by number (see reverse side).
 If existing descriptors do not fit your research, then

Type or print legibly in black or blue ink.

[Browse the technical program](#)

of the 79th General Session of the International Association for Dental Research (June 27-30, 2001)