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Thema: Bessere Verbundfestigkeit von Kunststoff auf Schmelz:
Sandstrahlen macht den Unterschied!

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Literatur

1. Black RB: Technique for non mechanical preparation of cavities and prophylaxis. J Am Dent Assoc 1945, 32: 955-965.
2. Chung K, Hsu B, Berry T, Hsieh T: Effect of sandblasting on the bond strength of the bondable molar tube bracket. J Oral Rehabil 2001, 28: 418-424.
3. Berk N, Basaran G, Ozer T: Comparison of sandblasting, laser irradiation, and conventional acid etching for orthodontic bonding of molar tubes. Eur J Orthod 2008, 30: 183-189.
4. Elnafar AA, Alam MK, Hasan R: The impact of surface preparation on shear bond strength of metallic orthodontic brackets bonded with a resin-modified glass ionomer cement. J Orthod 2014, 41: 201-207.
5. Wiechmann D: Lingual orthodontics (Part 3): Intraoral sandblasting and indirect bonding. J Orofac Orthop 2000, 61: 280-291.
6. Cal-Neto JP, Castro S, Moura PM, Ribeiro D, Miguel JA: Influence of enamel sandblasting prior to etching on shear bond strength of indirectly bonded lingual appliances. Angle Orthod 2011, 81: 149-152.
7. Baumgartner S, Koletsi D, Verna C, Eliades T: The effect of enamel sandblasting on enhancing bond strength of orthodontic brackets: a systematic review and meta-analysis. J Adhes Dent 2017, 19: 463-473.
8. Türköz C, Ulusoy C: Evaluation of different enamel conditioning techniques for orthodontic bonding. Korean J Orthod 2012, 42: 32-38.
9. Sargison AE, McCabe JF, Millett DT: A laboratory investigation to compare enamel preparation by sandblasting or acid etching prior to bracket bonding. Br J Orthod 1999, 26: 141-146.
10. Olsen ME, Bishara SE, Damon P, Jakobsen JR: Comparison of shear bond strength and surface structure between conventional acid etching and air-abrasion of human enamel. Am J Orthod Dentofacial Orthop 1997, 112: 502-506.
11. Buonocore MG: A simple method of increasing the adhesion of acrylic filling materials to enamel surfaces. J Dent Res 1955, 34: 849-853.

12. Bowen RL: Dental filling materials comprising vinyl silane treated fused silica and a binder consisting of a reaction product of bisphenole and glycidylacrylate. 1962; US Patent 3, 066, 122.
13. Halpern RM, Rouleau T: The effect of air abrasion preparation on the shear bond strength of an orthodontic bracket bonded to enamel. *Eur J Orthod* 2010, 32: 224-227.
14. Patil BS, Rao BR, Sharathchandra S, Hegde R, Kumar GV: Comparative evaluation of self-etching primers and phosphoric acid effectiveness on composite to enamel bond: an in vitro study. *J Contemp Dent Pract* 2013, 14: 790-795.
15. Reisner KR, Levitt HL, Mante F: Enamel preparation for orthodontic bonding: a comparison between the use of a sandblaster and current techniques. *Am J Orthod Dentofacial Orthop* 1997, 111: 366-373.
16. Camboni S, Donnet M: Tooth surface comparison after air polishing and rubber cup: a scanning electron microscopy study. *J Clin Dent* 2016, 27: 13-18.
17. Brown JR, Barkmeier WW: A comparison of six enamel treatment procedures for sealant bonding. *Pediatr Dent* 1996, 18: 29-31.
18. Robles-Ruiz JJ, Ciamponi AL, Medeiros IS, Kanashiro LK: Effect of lingual enamel sandblasting with aluminum oxide of different particle sizes in combination with phosphoric acid etching on indirect bonding of lingual brackets. *Angle Orthod* 2014, 84: 1068-1073.
19. Daratsianos N, Schütz B, Reimann S, Weber A, Papageorgiou SN, Jäger A, Bourauel C: The influence of enamel sandblasting on the shear bond strength and fractography of the bracket-adhesive-enamel complex tested in vitro by the DIN 13990:2017-04 standard. *Clin Oral Investig* 2018 Nov 13. doi: 10.1007/s00784-018-2692-7.