

Zirkonoxid-Implantate – Entwicklungsstand und offene Fragen

Teil 2: Die Auswahl geeigneter Restaurationsmaterialien

Jens Fischer, Nadja Rohr

ZMK 1-2/2022 (38), 6-21

- 1 Astasov-Frauenhoffer M, Glauser S, Fischer J, Schmidli F, Waltimo T, Rohr N. Biofilm formation on restorative materials and resin composite cements. *Dent Mater.* 2018;34:1702-1709.
- 2 Balmer M, Spies BC, Kohal RJ, Hämmerle CH, Vach K, Jung RE. Zirconia implants restored with single crowns or fixed dental prostheses: 5-year results of a prospective cohort investigation. *Clin Oral Implants Res.* 2020;31:452-462.
- 3 Blumer L, Schmidli F, Weiger R, Fischer J. A systematic approach to standardize artificial aging of resin composite cements. *Dent Mater.* 2015;31:855-863.
- 4 Bürgin S, Rohr N, Fischer J. Assessing degradation of composite resin cements during artificial aging by Martens hardness. *Head Face Med.* 2017;13:9.
- 5 Cassina G, Fischer J, Rohr N. Correlation between flexural and indirect tensile strength of resin composite cements. *Head Face Med.* 2016;12:29.
- 6 Coldea A, Fischer J, Swain MV, Thiel N. Damage tolerance of indirect restorative materials (including PICN) after simulated bur adjustments. *Dent Mater.* 2015;31:684-694.
- 7 Ferracane JL. Hygroscopic and hydrolytic effects in dental polymer networks. *Dent Mater.* 2006;22:211-222.
- 8 Glauser S, Astasov-Frauenhoffer M, Müller JA, Fischer J, Waltimo T, Rohr N. Bacterial colonization of resin composite cements: influence of material composition and surface roughness. *Eur J Oral Sci.* 2017;125:294-302.
- 9 Hitz T, Stawarczyk B, Fischer J, Hämmerle CH, Sailer I. Are self-adhesive resin cements a valid alternative to conventional resin cements? A laboratory study of the long-term bond strength. *Dent Mater.* 2012;28:1183-1190.
- 10 Holderegger C, Sailer I, Schuhmacher C, Schläpfer R, Hämmerle C, Fischer J. Shear bond strength of resin cements to human dentin. *Dent Mater.* 2008;24:944-950.
- 11 Hu M, Weiger R, Fischer J. Comparison of two test designs for evaluating the shear bond strength of resin composite cements. *Dent Mater.* 2016;32:223-232.
- 12 Kohal RJ, Spies BC, Vach K, Balmer M, Pieralli S. A prospective clinical cohort investigation on zirconia implants: 5-year results. *J Clin Med.* 2020;9:2585.
- 13 Müller JA, Rohr N, Fischer J. Evaluation of ISO 4049: water sorption and water solubility of resin cements. *Eur J Oral Sci.* 2017;125:141-150.
- 14 Nueesch R, Conejo J, Mante F, Fischer J, Martin S, Rohr N, Blatz MB. Loading capacity of CAD/CAM-fabricated anterior feldspathic ceramic crowns bonded to one-piece zirconia implants with different cements. *Clin Oral Implants Res.* 2019;30:178-186.
- 15 Rohr N, Balmer M, Müller JA, Martin S, Fischer J. Chewing simulation of zirconia implant supported restorations. *J Prosthodont Res.* 2019;63:361-367.
- 16 Rohr N, Bertschinger N, Fischer J, Filippi A, Zitzmann NU. Influence of material and surface roughness of resin composite cements on fibroblast behavior. *Oper Dent* 2020;45:528-536.
- 17 Rohr N, Brunner S, Martin S, Fischer J. Influence of cement type and ceramic primer on retention of polymer-infiltrated ceramic crowns to a one-piece zirconia implant. *J Prosthet Dent.* 2018;119:138-145.
- 18 Rohr N, Coldea A, Zitzmann NU, Fischer J. Loading capacity of zirconia implant supported hybrid ceramic crowns. *Dent Mater.* 2015;31:e279-288.
- 19 Rohr N, Fischer J. Effect of aging and curing mode on the compressive and indirect tensile strength of resin composite cements. *Head Face Med.* 2017;13:22.
- 20 Rohr N, Flury A, Fischer J. Efficacy of a universal adhesive in the bond strength of composite cements to polymer-infiltrated ceramic. *J Adhes Dent.* 2017;19:417-424.

- 21 Rohr N, Martin S, Fischer J. Correlations between fracture load of zirconia implant supported single crowns and mechanical properties of restorative material and cement. *Dent Mater J.* 2018 30;37:222-228.
- 22 Rohr N, Martin S, Fischer J. Fracture load of zirconia implant supported CAD/CAM resin crowns and mechanical properties of restorative material and cement. *J Prosthodont Res.* 2021. doi: 10.2186/jpr.JPR_D_20_00051. Epub ahead of print.
- 23 Rohr N, Müller JA, Fischer J. Influence of ambient temperature and light-curing moment on polymerization shrinkage and strength of resin composite cements. *Oper Dent.* 2018;43:619-630.
- 24 Schwenter J, Schmidli F, Weiger R, Fischer J. Adhesive bonding to polymer infiltrated ceramic. *Dent Mater J.* 2016;35:796-802.
- 25 Spies BC, Balmer M, Jung RE, Sailer I, Vach K, Kohal RJ. All-ceramic, bi-layered crowns supported by zirconia implants: Three-year results of a prospective multicenter study. *J Dent.* 2017;67:58-65.
- 26 Spies BC, Balmer M, Jung RE, Sailer I, Vach K, Kohal RJ. All-ceramic single crowns supported by zirconia implants: 5-year results of a prospective multicenter study. *Clin Oral Implants Res.* 2019;30:466-475.
- 27 Spies BC, Kohal RJ, Balmer M, Vach K, Jung RE. Evaluation of zirconia-based posterior single crowns supported by zirconia implants: preliminary results of a prospective multicenter study. *Clin Oral Implants Res.* 2017;28:613-619.
- 28 Spies BC, Pieralli S, Vach K, Kohal RJ. CAD/CAM-fabricated ceramic implant-supported single crowns made from lithium disilicate: Final results of a 5-year prospective cohort study. *Clin Implant Dent Relat Res.* 2017;19:876-883.
- 29 Straface A, Rupp L, Gintaute A, Fischer J, Zitzmann NU, Rohr N. HF etching of CAD/CAM materials: influence of HF concentration and etching time on shear bond strength. *Head Face Med.* 2019;15:21.
- 30 Zeller DK, Fischer J, Rohr N. Viscous behavior of resin composite cements. *Dent Mater J.* 2021;40:253-259.