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Quo vadis, Praxismarketing? Teil 2

Literaturliste:

- (1) Jahrbuch der KZBV (2015): Anzahl der Vertragszahnärzte,
<http://www.kzbv.de/statistische-basisdaten.768.de.html> (Stand: 04.05.2015)
- (2) „Internet wichtigste Informationsquelle für Patienten“, Healthcaremarketing.eu,
<http://www.healthcaremarketing.eu/medien/detail.php?nr=5153&rubric=Medien&>
(Stand: 04.05.2015)

ZMK (31) 5 2015, S. 312-323

Dr. med. dent. Florian Rothe, MSc

Parodontologie von A bis Z, Teil 4: Plastische Parodontalchirurgie

[1] Miller PD Jr: A classification of marginal tissue recession. *Int J Periodontics Restorative Dent* 5, 9 (1958).

[2] Caffesse RG, De LaRosa M, Garza M, Munne-Travers A, Weltman R: Citric acid demineralization and subepithelial connective tissue grafts. *J Periodontol* 71, 568 (2000).

[3] Pfeifer J, Heller R: Histologic evaluation of full and partial thickness lateral repositioned flaps. *J Periodontol* 42, 331 (1971).

[4] Harvey P: Management of advanced periodontitis. Part I. Preliminary report of a method of surgical reconstruction. *N Z Dent J* 61, 180 (1965).

[5] Zuchelli G, De Sanctis M: Treatment of multiple recession-type defects in patients with esthetic demands. *J Periodontol* 71, 1506 (2000).

[6] Tarnow DP: Semilunar coronally repositioned flap. *J Clin Periodontol* 13, 182 (1986).

[7] Sullivan HC, Atkins JH: Free autogenous gingival grafts. I. Principles of successful grafting. *Periodontics* 6, 121 (1968).

[8] Hürzeler MB, Weng D: A single-incision technique to harvest subepithelial connective tissue graft from the palate. *Int J Periodontics Restorative Dent* 19, 279 (1999).

[9] Langer B, Langer L: Subepithelial connective tissue graft technique for root coverage. *J Periodontol* 56, 715 (1985).

[10] Nelson SW: The subpedicle connective tissue graft. *J Periodontol* 58, 95 (1987).

[11] Harris RJ: The connective tissue and partial thickness doublepedicle graft: a predictable method of obtaining root coverage. *J Periodontol* 63, 477 (1992).

[12] Bruno JF: Connective tissue graft technique assuring wide root coverage. *Int J Periodontics Restorative Dent* 14, 127 (1994).

[13] Raetzke PB: Covering localized areas of root exposure employing the envelope technique. *J Periodontol* 56, 397 (1985).

[14] Allen AL: Use of supraperiosteal envelope in soft tissue grafting for root coverage. I Rationale and technique. *Int J Periodontics Restorative Dent* 19, 49 (1994).

[15] Azzi R, Etienne D: Recouvrement radiculaire et reconstruction papillle. *J Parodontologie & Implant* 1, 14 (1998).

- [16] Pini Prato GP, Tinti C, Vincenzi G, Magnani C, Cortellini P, Clauser C: Guided tissue regeneration versus mucogingival surgery in the treatment of human buccal gingival recession. *J Periodontol* 63, 919 (1992).
- [17] Karring T, Cumming BR, Oliver RC, Löe H: The origin of granulation tissue and its impact on postoperative results of mucogingival surgery. *J Periodontol* 46, 577 (1975).
- [18] Zuchelli G, De Sanctis M: Long-term outcome following treatment of multiple Miller class I and II recession defects in esthetic areas of the mouth. *J Periodontol* 76, 2286 (2005).
- [19] Wennström JL, Zuchelli G: Increased gingival dimensions. A significant factor for successful outcome of root coverage procedures? A 2 year prospective clinical study. *J Clin Periodontol* 23, 770 (1996).
- [20] Wennström JL, Pini Prato G: Mucogingival Therapy. Chapter 19 in Clinical Periodontology and Implant Dentistry, 550–596. Hrsg. Lindhe J, 3rd Edition, Munksgaard Verlag (1998).

Herr Dr. Philipp Sahrmann

Diagnose und Prophylaxe periimplantärer Erkrankungen

Literaturliste:

1. Albrektsson, T., Zarb, G., Worthington, P., Eriksson, A. R.: The long-term efficacy of currently used dental implants: a review and proposed criteria of success. *Int J Oral Maxillofac Implants* 1, 11 (1986).
2. Berglundh, T., Zitzmann, N. U., Donati, M.: Are peri-implantitis lesions different from periodontitis lesions? *J Clin Periodontol* 38 Suppl 11, 188 (2011).
3. Borm, J. M., Moser, S., Locher, M. et al.: [Risk assessment in patients undergoing osseous antiresorptive therapy in dentistry. An update]. *Schweiz Monatsschr Zahnmed* 123, 985 (2013).
4. Brito, C., Tenenbaum, H. C., Wong, B. K., Schmitt, C., Nogueira-Filho, G.: Is keratinized mucosa indispensable to maintain peri-implant health? A systematic review of the literature. *J Biomed Mater Res B Appl Biomater* 102, 643 (2014).
5. Carcuac, O., Berglundh, T.: Composition of human peri-implantitis and periodontitis lesions. *J Dent Res* 93, 1083 (2014).
6. Costa, F. O., Takenaka-Martinez, S., Cota, L. O., Ferreira, S. D., Silva, G. L., Costa, J. E.: Peri-implant disease in subjects with and without preventive maintenance: a 5-year follow-up. *J Clin Periodontol* 39, 173 (2012).
7. Daubert, D. M., Weinstein, B. F., Bordin, S., Leroux, B. G., Flemming, T. F.: Prevalence and predictive factors for peri-implant disease and implant failure: a cross-sectional analysis. *J Periodontol* 86, 337 (2015).
8. de Waal, Y. C., Raghoebar, G. M., Meijer, H. J., Winkel, E. G., van Winkelhoff, A. J.: Prognostic indicators for surgical peri-implantitis treatment. *Clin Oral Implants Res* Volume, Seitenzahl (2015).
9. Dubey, R. K., Gupta, D. K., Singh, A. K.: Dental implant survival in diabetic patients; review and recommendations. *Natl J Maxillofac Surg* 4, 142 (2013).
10. Etter, T. H., Hakanson, I., Lang, N. P., Trejo, P. M., Caffesse, R. G.: Healing after standardized clinical probing of the periimplant soft tissue seal: a histomorphometric study in dogs. *Clin Oral Implants Res* 13, 571 (2002).
11. Ferreira, S. D., Silva, G. L., Cortelli, J. R., Costa, J. E., Costa, F. O.: Prevalence and risk variables for peri-implant disease in Brazilian subjects. *J Clin Periodontol* 33, 929 (2006).
12. Froum, S. J., Rosen, P. S.: Reentry evaluation following treatment of peri-implantitis with a regenerative approach. *Int J Periodontics Restorative Dent* 34, 47 (2014).

13. Hallstrom, H., Persson, G. R., Lindgren, S., Olofsson, M., Renvert, S.: Systemic antibiotics and debridement of peri-implant mucositis. A randomized clinical trial. *J Clin Periodontol* 39, 574 (2012).
14. Heitz-Mayfield, L. J., Huynh-Ba, G.: History of treated periodontitis and smoking as risks for implant therapy. *Int J Oral Maxillofac Implants* 24 Suppl, 39 (2009).
15. Heitz-Mayfield, L. J., Mombelli, A.: The therapy of peri-implantitis: a systematic review. *Int J Oral Maxillofac Implants* 29 Suppl, 325 (2014).
16. Implantatstiftung Schweiz. **Bitte vollständige Referenz angeben** (2015).
17. Jung, R. E., Pjetursson, B. E., Glauser, R., Zembic, A., Zwahlen, M., Lang, N. P.: A systematic review of the 5-year survival and complication rates of implant-supported single crowns. *Clin Oral Implants Res* 19, 119 (2008).
18. Korsch, M., Walther, W.: Peri-implantitis associated with type of cement: A retrospective analysis of different types of cement and their clinical correlation to the peri-implant tissue. *Clin Implant Dent Relat Res* (2014).
19. Krennmaier, G., Seemann, R., Piehslinger, E.: Dental implants in patients with rheumatoid arthritis: clinical outcome and peri-implant findings. *J Clin Periodontol* 37, 928 (2010).
20. Lang, N. P., Berglundh, T.: Periimplant diseases: where are we now? – Consensus of the Seventh European Workshop on Periodontology. *J Clin Periodontol* 38 Suppl 11, 178 (2011).
21. Lang, N. P., Tonetti, M. S.: Periodontal risk assessment (PRA) for patients in supportive periodontal therapy (SPT). *Oral Health Prev Dent* 1, 7 (2003).
22. Mann, M., Parmar, D., Walmsley, A. D., Lea, S. C.: Effect of plastic-covered ultrasonic scalers on titanium implant surfaces. *Clin Oral Implants Res* 23, 76 (2012).
23. Maruyama, N., Maruyama, F., Takeuchi, Y., Aikawa, C., Izumi, Y., Nakagawa, I.: Intraindividual variation in core microbiota in peri-implantitis and periodontitis. *Sci Rep* 4, 6602 (2014).
24. Meffert, R. M.: Periodontitis vs. peri-implantitis: the same disease? The same treatment? *Crit Rev Oral Biol Med* 7, 278 (1996).
25. Moene, R., Decaillet, F., Andersen, E., Mombelli, A.: Subgingival plaque removal using a new air-polishing device. *J Periodontol* 81, 79 (2010).
26. Moene, R., Decaillet, F., Mombelli, A.: [Subgingival air-polishing: new perspectives for periodontal maintenance?]. *Schweiz Monatsschr Zahnmed* 120, 891 (2010).
27. Moraschini, V., Velloso, G., Luz, D., Porto Barboza, E.: Implant survival rates, marginal bone level changes, and complications in full-mouth rehabilitation with flapless computer-guided surgery: a systematic review and meta-analysis. *Int J Oral Maxillofac Surg* **Volume, Seitenzahl** (2015).
28. Petersilka, G., Faggion, C. M. J., Stratmann, U. et al.: Effect of glycine powder air-

- polishing on the gingiva. *J Clin Periodontol* 35, 324 (2008).
29. Petersilka, G. J.: Subgingival air-polishing in the treatment of periodontal biofilm infections. *Periodontol* 2000 55, 124 (2011).
30. Renvert, S., Samuelsson, E., Lindahl, C., Persson, G. R.: Mechanical non-surgical treatment of peri-implantitis: a double-blind randomized longitudinal clinical study. I: clinical results. *J Clin Periodontol* 36, 604 (2009).
31. Rudiger, S. G., Carlen, A., Meurman, J. H., Kari, K., Olsson, J.: Dental biofilms at healthy and inflamed gingival margins. *J Clin Periodontol* 29, 524 (2002).
32. Sahm, N., Becker, J., Santel, T., Schwarz, F.: Non-surgical treatment of peri-implantitis using an air-abrasive device or mechanical debridement and local application of chlorhexidine: a prospective, randomized, controlled clinical study. *J Clin Periodontol* 38, 872 (2011).
33. Sahrmann, P., Ronay, V., Hofer, D., Attin, T., Jung, R. E., Schmidlin, P. R.: In vitro cleaning potential of three different implant debridement methods. *Clin Oral Implants Res* 26, 314 (2015).
34. Schou, S., Holmstrup, P., Stoltze, K., Hjorting-Hansen, E., Fiehn, N. E., Skovgaard, L. T.: Probing around implants and teeth with healthy or inflamed peri-implant mucosa/gingiva. A histologic comparison in cynomolgus monkeys (*Macaca fascicularis*). *Clin Oral Implants Res* 13, 113 (2002).
35. Stellungnahmen der Deutschen Gesellschaft für Zahn-, Mund- und Kieferheilkunde: **Bitte vollständige Referenz angeben** (2014).
36. Tatarakis, N., Bashutski, J., Wang, H. L., Oh, T. J.: Early implant bone loss: preventable or inevitable? *Implant Dent* 21, 379 (2012).
37. Terheyden, H., Stadlinger, B., Sanz, M., Garbe, A. I., Meyle, J.: Inflammatory reaction – communication of cells. *Clin Oral Implants Res* 25, 399 (2014).
38. Wiegand, A., Sahrmann, P., Holmstrup, P. et al.: [Für wen sind Schallzahnbürsten wirklich besser?]. *Plaque N Care* **Volume, Seitenzahl** (2013).
39. Wilson, T. G. J.: The positive relationship between excess cement and peri-implant disease: a prospective clinical endoscopic study. *J Periodontol* 80, 1388 (2009).
40. Zitzmann, N. U., Berglundh, T.: Definition and prevalence of peri-implant diseases. *J Clin Periodontol* 35, 286 (2008).

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Die Entfernung der temporären Wurzelkanaleinlage

Literatur:

- [1] Adler C: Vergleichende In-Vitro-Studie zur Entfernung der medikamentösen Einlage Kalziumhydroxid aus runden und ovalen Wurzelkanälen; Vergleich von passiver Ultraschallspülung und SAF. Eine Micro-CT-Studie. Med Diss, Göttingen 2014.
- [2] Ahmetoglu F, Simsek N, Keles A, Ocak MS, Er K: Efficacy of self-adjusting file and passive ultrasonic irrigation on removing calcium hydroxide from root canals. Dent Mater J 32, 1005-1010 (2013).
- [3] Al-Garni S, Al-Shahrani S, Al-Nazhan S, Al-Maflehi N: Evaluation of calcium hydroxide removal using EndoActivator system: an in vitro study. Saudi Endod J 4, 13-19 (2014).
- [4] Alturaiki S, Lamphon H, Edrees H, Ahlquist M: Efficacy of 3 different irrigation systems on removal of calcium hydroxide from the root canal. A scanning electron microscopic study. J Endod 41, 97-101 (2015).
- [5] Arslan H, Akcay M, Capar ID, Ertas H, Ok E, Uysal B: Efficacy of needle irrigation, EndoActivator, and Photon-initiated photoacoustic streaming technique on removal of double and triple antibiotic paste. J Endod 40, 1439-1442 (2014).
- [6] Arslan H, Akcay M, Capar ID, Saygili G, Gok T, Ertas H: An in vitro comparison of irrigation using photon-initiated photoacoustic streaming, ultrasonic, sonic and needle techniques in removing calcium hydroxide. Int Endod J doi:10.1111/iej.12306.
- [7] Arslan H, Capar ID, Saygili B, Uysal B, Gok T, Ertas H, Topcuoglu HS: Efficacy of various irrigation protocols on the removal of triple antibiotic paste. Int Endod J 40, 594-599 (2014).
- [8] Arslan H, Gok T, Saygili G, Altintop H, Akcay M, Capar ID: Evaluation of effectiveness of various irrigating solutions on removal of calcium hydroxide mixed with 2% chlorhexidine gel and detection of orange-brown precipitate after removal. J Endod 40, 1820-1823 (2014).
- [9] Athanassidis B, Abbott PV, Walsh LJ: The use of calcium hydroxide, antibiotics and biocides as antimicrobial medicaments in endodontics. Aust Dent J 52, (Suppl) 64-82 (2007).
- [10] Balvedi RP, Versiani MA, Manna FF, Biffi JC: A comparison of two techniques for the removal of calcium hydroxide from root canals. Int Endod J 43, 763-768 (2010).
- [11] Berkhoff JA, Chen PB, Teixeira FB, Diogenes A: Evaluation of triple antibiotic paste removal by different irrigation procedures. J Endod 40, 1172-1177 (2014).
- [12] Bodrumlu E, Avsar A, Hazar Bodrumlu E, Cicek E: The effects of calcium hydroxide removal methods on bond strength of Epiphany SE with two irrigation protocols. Acta Odont Scand 71, 989-993 (2013).
- [13] Byström A, Sundqvist G: Bacteriologic evaluation of the efficacy of mechanical root canal instrumentation in endodontic therapy. Scand J Dent Res 89, 321-328 (1981).

- [14] Çalt S, Serper A: Dentinal tubule penetration of root canal sealers after root canal dressing with calcium hydroxide. *J Endod* 25, 431–433 (1999).
- [15] Çalt S, Serper A, Özçelik B, Dalat MD: Dentinal tubule penetration of root canal sealers after root canal dressing with calcium hydroxide. *J Endod* 25, 329-331 (1999).
- [16] Capar ID, Ozcan E, Arslan H, Ertas H, Aydinbelge HA: Effect of different final irrigation methods on the removal of calcium hydroxide from an artificial standardized groove in the apical third of root canals. *J Endod* 40, 451-454 (2014).
- [17] Chou K, George R, Walsh LJ: Effectiveness of different intracanal irrigation techniques in removing intracanal paste medicaments. *Aust Endod J* 40, 21-25 (2014).
- [18] De-Deus G, Souza EM, Barino B, Maia J, Zamolyi RQ, Reis C, Kfir A: The Self-Adjusting-File optimizes debridement quality in oval-shaped root canals. *J Endod* 37, 701-705 (2011).
- [19] Estrela C, Sydney GB, Bammann LL, Felippe Júnior O: Mechanism of action of calcium and hydroxyl ions of calcium hydroxide on tissue and bacteria. *Braz Dent J* 6, 85–90 (1995).
- [20] Faria G, Kuga MC, Ruy AC, Aranda-Garcia AJ, Bonetti-Filho I, Guerreiro-Tanomaru JM, Leonardo RT: The efficacy of the self-adjusting file and ProTaper for removal of calcium hydroxide from root canals. *J Appl Oral Sci* 21, 346-350 (2013).
- [21] Faria G, Viola KS, Kuga MC, Garcia AJ, Daher VB, De Pasquali Leonardo MF, Tanomaru-Filho M: Effect of rotary instrument associated with different irrigation techniques on removing calcium hydroxide dressing. *Microsc Res Tech* 77, 642-666 (2014).
- [22] Fava LR, Saunders WP: Calcium hydroxide pastes: classification and clinical indications. *Int Endod J* 32, 257–282 (1999).
- [23] Goldberg F, Alfie D, Roitmann M: Evaluation of the incidence of transportation after placement and removal of calcium hydroxide. *J Endod* 30, 646-648 (2004).
- [24] Gorduysus M, Yilmaz Z, Gorduysus O, Atila B, Karapinar SO: Effectiveness of a new canal brushing technique in removing calcium hydroxide from the root canal system: a scanning electron microscope study. *J Conserv Dent* 15, 367-371 (2012).
- [25] Hof R, Perevalov V, Eltanani M, Zary R, Metzger Z: The Self-Adjusting File (SAF). Part 2: mechanical analysis. *J Endod* 36, 691-696 (2010).
- [26] Hosoya Y, Garcia-Godoy F, Summit JB: Microleakage and sealant penetration using a vibrating probe. *Am J Dent* 17, 427-432 (2004).
- [27] Hülsmann M: Effects of mechanical instrumentation and chemical irrigation on the root canal dentin and surrounding tissues. *Endod Topics* 29, 55-86 (2013).
- [28] Hülsmann M, Rödig T: Probleme der Desinfektion des Wurzelkanalsystems. In: Hülsmann M, Schäfer E (Hrsg.): Probleme in der Endodontie: Prävention, Identifikation und Management. Quintessenz, 235-280 (2007).
- [29] Huque J, Kota K, Yamaga M, Iwaku M, Hishino E: Bacterial eradication from root dentine by ultrasonic irrigation with sodium hypochlorite. *Int Endod J* 31, 242-250 (1988).
- [30] Kaja C, Altundasar E, Tuncel B, Serper A: Effects of volume and application time of EDTA for removing calcium hydroxide from root canals ex vivo. *Int End J* 44, 1176-1221 (2011).

- [31] Kenee DM, Allemand JD, Johnson JD, Hellstein J, Nichol BK: A quantitative assessment of efficacy of various calcium hydroxide removal techniques. *J Endod* 32, 563–565 (2006).
- [32] Kim D, Kim E: Antimicrobial effect of calcium hydroxide as an intracanal medicament in root canal treatment: a literature review. *Restor Dent Endod* 39, 241-252 (2014).
- [33] Kuga MC: Calcium hydroxide intracanal dressing removal with different rotary instruments and irrigating solutions: a scanning electron microscopy study. *Braz Dent J* 21, 310-314 (2010).
- [34] Lambrianidis T, Kosti E, Boutsioukis C, Mazinis M: Removal efficacy of various calcium hydroxide/chlorhexidine medicaments from the root canal. *Int Endod J* 39, 55–61 (2006).
- [35] Lambrianidis T, Margelos J, Beltes P: Removal efficiency of calcium hydroxide dressing from the root canal. *J Endod* 25, 85–88 (1999).
- [36] Lee S, Wu M, Wesselink PR: The efficacy of ultrasonic irrigation to remove artificially placed dentine debris from different-sized simulated plastic root canals. *Int Endod J* 37, 607–612 (2004).
- [37] Ma JZ, Shen Y, Yang Y, Gao Y, Wan P, Gan Y, Patel P, Curti A, Khakpour M, Haapasalo M: In vitro study of calcium hydroxide removal from mandibular molar root canals. *J Endod* 2015; doi:10.1016/j.joen.2014.11.023 (epub ahead of print).
- [38] Ma JZ, Shen Y, Al-Ashaw AJ, Khaleel HY, Yang Y, Wang ZJ, Peng B, Haapasalo M: Micro-computed tomography evaluation of the removal of calcium hydroxide medicament from C-shaped root canals of mandibular second molars. *Int Endod J* 2014; doi:10.1111/iej.12319 (epub ahead of print).
- [39] Maalouf L, Zogheib C, Naaman A: Removal efficiency of calcium hydroxide dressing from the root canal without chemically active adjuvant. *J Contemp Dent Pract* 14, 188-192 (2013).
- [40] Margelos J, Eliades G, Verdelis C, Palaghias G: Interaction of calcium hydroxide with zinc oxide-eugenol type sealers: a potential clinical problem. *J Endod* 23, 43–48 (1997).
- [41] Melo da Silva J, Silveira A, Santos E, Prado L, Pessoa OF: Efficacy of sodium hypochlorite, ethylenediaminetetraacetic, citric acid and phosphoric acid in calcium hydroxide removal from the root canal: a microscopic cleanliness evaluation. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 112, 820-824 (2011).
- [42] Metzger Z, Teperovich E, Rary R, Hof R: The self-adjusting file (SAF). Part I: respecting the root canal anatomy – a new concept of endodontic files and its implementation *J Endod* 36, 679-690 (2010).
- [43] Nainan MT, Nirupama D, Benjamin S: Comparison of the efficacy of ethylene diaminetetraacetic acid and maleic acid in the removal of three calcium hydroxide intra-canal dressings: a spiral computerized tomography volumetric analysis. *J Conserv Dent* 16, 56-60 (2013).
- [44] Nandini S, Velmurugan N, Kandaswamy D: Removal efficiency of calcium hydroxide intracanal medicament with two calcium chelators: volumetric analysis using spiral CT, an in vitro study. *J Endod* 32, 1097–1101 (2006).
- [45] Ricucci D, Langeland K: Incomplete calcium hydroxide removal from the root canal: a case report. *Int Endod J* 30, 418-421 (1997).
- [46] Rôcas I, Siqueira JF Jr: In vivo antimicrobial effects of endodontic treatment procedures as assessed by molecular microbiologic techniques. *J Endod* 37, 304-310 (2011).

- [47] Rödig T, Hirschleb M, Zapf A, Hülsmann M: Comparison of ultrasonic irrigation and RinsEndo for the removal of calcium hydroxide and ledermix paste from root canals. *Int Endod J* 44, 1155–1161 (2011).
- [48] Rödig T, Hülsmann M: Applikation und Entfernung der medikamentösen Einlage. *Endodontie* 15, 379–385 (2006).
- [49] Rödig T, Vogel S, Zapf A, Hülsmann M: Efficacy of different irrigants in the removal of calcium hydroxide from root canals. *Int Endod J* 43, 519–527 (2010).
- [50] Salgado RJC, Moura-Netto C, Yamazaki AK, Cardoso LN, Moura AA, Prokopowitsch I: Comparison of different irrigants on calcium hydroxide medication removal: microscopic cleanliness evaluation. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 107, 580–584 (2009).
- [51] Schmidt AK: Untersuchung neuer Techniken zur Entfernung von Kalziumhydroxid aus dem Wurzelkanalsystem gerader Wurzelkanäle. *Med Diss*, Göttingen 2011.
- [52] Schröder M: Vergleichende Studie der Effektivität vier verschiedener Spültechniken zur Entfernung von Kalziumhydroxid aus einem gekrümmten Wurzelkanal. *Med Diss*, Göttingen 2012.
- [53] Silva LJ, Pessoa OF, Teixeira MB, Gouveia CH, Braga RR: Micro-CT evaluation of calcium hydroxide removal through passive ultrasonic irrigation associated with or without an additional instrument. *Int Endod J* 2014;doi:10.1111/iej.12374 (epub ahead of print).
- [54] Siqueira JF, Lopes HP: Mechanisms of antimicrobial activity of calcium hydroxide: a critical review. *Int Endod J* 32, 361–369 (1999).
- [55] Taşdemir T, Celik D, Er K, Yıldırım T, Ceyhanlı KT, Yeşilyurt C: Efficacy of several techniques for the removal of calcium hydroxide medicament from root canals. *Int Endod J* 44, 505–509 (2011).
- [56] Topcuoglu HS, Düzgün S, Ceyhanlı KT, Aktı A, Pala K, Kesim B: Efficacy of different irrigation techniques in the removal of calcium hydroxide from a simulated internal resorption cavity. *Int Endod J* 2014, doi:10.1111/iej.12316 (epub ahead of print).
- [57] Türker SA, Kocak MM, Kocak S, Saglam BC: Comparison of calcium hydroxide removal by self-adjusting file, EndoVac, and Canal Brush agitation techniques: an in vitro study. *J Conserv Dent* 16, 439–443 (2013).
- [58] Ustun Y, Uzun O, Er O, Canakci BC, Touz O: The effect of residual calcium hydroxide on the accuracy of a contemporary electronic apex locator. *Acta Odontol Scand* 73, 132–136 (2015).
- [59] Van der Sluis LW, Wu MK, Wesselink PR: The evaluation of removal of calcium hydroxide paste from an artificial standardized groove in the apical root canal using different irrigation methodologies. *Int Endod J* 40, 52–57 (2007).
- [60] Wiseman A, Cox TC, Paranjpe A, Flake NM, Cohenca N, Johnson JD: Efficacy of sonic and ultrasonic activation for removal of calcium hydroxide from mesial canals of mandibular molars: a microtomographic study. *J Endod* 37, 235–238 (2011).
- [61] Yücel AC, Gürel M, Güler E, Karabucak B: Comparison of final irrigation techniques in removal of calcium hydroxide. *Aust Endod J* 39, 116–121 (2013).

Prävention ab dem ersten Zahn

Prof. Dr. Christian h. Splieth, Dr. Ruth Santamaria, Dr. Julian Schmöckel
ZMK (31) 5/2015, 324-327

1. Bolin AK: Children's dental health in Europe. An epidemiological investigation of 5- and 12-year-old children from eight EU countries. *Swed Dent J Suppl* 1997; 122: 1–88.
2. Deutsche Arbeitsgemeinschaft Jugendzahnpflege (DAJ): Begleituntersuchungen zur Gruppenprophylaxe 2009. Bonn: DAJ 2010.
3. Baden A, Schiffner U: Milchzahnkaries bei 3–6-jährigen Kindern im Landkreis Steinburg. *Oralprophylaxe Kinderzahnheilkunde* 2008; 30: 70–74.
4. Berndt C, Splieth CH: Zahnärztlicher Gesundheitsbericht 2006/2007. Greifswald 2007.
5. Selwitz RH, Ismail AI, Pitts NB: Dental caries. *Lancet* 2007; 6: 51–59.
6. Gomez SS, Weber AA: Effectiveness of a caries preventive program in pregnant women and new mothers on their offspring. *Int J Paediatr Dent* 2001; 11: 117–122.
7. Freeman R: Moderate evidence support a relationship between sugar intake and dental caries. *Evid Based Dent* 2014; 15: 98–99.
8. Splieth Ch, Schwahn Ch, Hölzel C, Nourallah A, Pine C: Prävention nach Maß? Mundhygienegewohnheiten bei 3–4-jährigen Kindern mit und ohne kariöse Defekte. *Oralprophylaxe* 2004; 26: 106–109.
9. Deutsche Arbeitsgemeinschaft für Jugendzahnpflege (DAJ): Inhalte der Gruppenprophylaxe für unter 3-jährige Kinder. Botschaften und Empfehlungen Bonn: DAJ 2012.
10. Splieth Ch: Professionelle Prävention – Zahnärztliche Prophylaxe für alle Altersgruppen. Berlin, Quintessenz Verlag 2000.
11. Hausen H.: Benefits of topical fluorides firmly established. *Evid Based Dent* 2004; 5: 36–37.
12. Lussi A, Hellwig E, Klimek J: Fluorides – mode of action and recommendations for use. *Schweiz Monatsschr Zahnmed* 2012; 122: 1030–1042.
13. Marinho VC, Higgins JP, Sheiham A, Logan S: Combinations of topical fluoride (toothpastes, mouthrinses, gels, varnishes) versus single topical fluoride for preventing dental caries in children and adolescents. *Cochrane Database Syst Rev* 2004; 1: CD002781.
14. Øgaard B: Effects of fluoride on caries development and progression in vivo. *J Dent Res* 1990; 69: 813–819.
15. dos Santos AP, Nadanovsky P, de Oliveira BH: A systematic review and meta-analysis of the effects of fluoride toothpastes on the prevention of dental caries in the primary dentition of preschool children. *Community Dent Oral Epidemiol* 2013; 41: 1–12.
16. Deutsche Gesellschaft für Zahn-, Mund- und Kieferheilkunde (DGZMK): Leitlinie „Fluoridierungsmaßnahmen zur Kariesprophylaxe“. 2012.
17. Deutsche Gesellschaft für Kinderheilkunde und Jugendmedizin (DGKJ): Zur Kariesprophylaxe mit Fluoriden. Empfehlung. 2006.
18. European Academy of Paediatric Dentistry (EAPD): Guidelines on the use of fluoride in children: an EAPD policy document. *Eur Arch Paediatr Dent* 2009; 10: 129–135.
19. Bratthall D, Hänsel-Petersson G, Sundberg H: Reasons for the caries decline: what do the experts believe? *Eur J Oral Sci* 1996; 104: 416–422; discussion 423–425, 430–432.

20. Deutsche Arbeitsgemeinschaft für Jugendzahnpflege (DAJ): Dokumentation der Maßnahmen in der Gruppenprophylaxe. Jahresauswertung Schuljahr 2010/2011. Bonn: DAJ 2012.