Wie optimiere ich die Teamleistung durch Selbstmanagement?
Wolfram Jost

ZMK 6 (34) 2018, 418-421

1. Bischof, K., Bischof, A., & Müller, H. (2014). *Selbstmanagement* (3. Ausg.). Freiburg: Haufe-Lexware GmbH&Co KG.
2. Dilts, R. (1994). *Die Veränderung von Glaubenssystemen* (5. Ausg.). Paderborn: Junfermann-Verlag.
3. GALLUP-Institut. (20. Mär 2017). *Engagement-Index*. Abgerufen am 06. Nov 2017 von http://www.gallup.de/183104/engagement-index-deutschland.aspx
4. Handrock, A. (1999). *Sprache und Verständlichkeit (Neurolinguistisches Programmieren - Die NLP-Methode für die Praxis).* Berlin, Chicago, Lodon, Tokio, Paris, Barcelona, Sao Paulo, Moskau, Prag, Warschau: Quintessenz Verlags-GmbH.
5. Heintze, A. (2011). *Burnout und Stressmanagement bei Zahnärzten.* Balingen: Spitta Verlag GmbH & Co KG.
6. James, T., & Woodsmall, W. (1991). *Time-Line.* Paderborn: Jungfermann-Verlag.
7. Jost, W. (02. Feb 2018). *Das bin ich, das will ich und da will ich hin! - Einführung in das Selbstmanagement.* Kurs im Auftrag der Zahnärztekammer Westfalen Lippe, Münster.
8. Libet, B. (2005). *Mind-Time - Wie das Gehirn Bewusstsein produziert.* Berlin: Suhrkamp-Verlag.
9. Niermeyer, R., & Seyffert, M. (2013). *Motivation.* Freiburg im Breigau: Haufe-Lexware GmbH & Co KG.
10. Nöllke, M. (2016). *Psychologie für Führungskräfte.* München: Beck-Verlag.
11. Rizzolatti, G., & Craighero, L. (2004). The Mirror-Neuron System. *Annu Rev Neurosci, 27*, S. 169-192.
12. Wolfers, M. (2017). *Freunde fürs Leben - Von der Kunst mit sich selbst befreundet zu sein* (2. Ausg.). Asslar: Adeo-Verlag.

Die Herausforderung bei der Behandlung von Demenzpatienten

Teil 4: Herausforderndes Verhalten und Verlust der Sprache

ZMK 6/2019 (35), 440-444

[1] Baer, U., & Schotte, G. (2009). *Das Herz wird nicht dement.* Neukirchen-Vluyn: Affenkönig-Verlag.

[2] Calderón-Garcidueñas, L., Gónzalez-Maciel, A., Reynoso-Robles, R., Delgado-Chávez, R., Mukherjee, P. S., Kulesza, R. J., . . . Villarreal-Ríos, R. (Jul 2018). Hallmarks of Alzheimer disease are evolving relentlessly in Metropolitan Mexico City infants, children and young adults. APOE4 carriers have higher suicide risk and higher odds of reaching NFT stage V at ≤ 40 years of age. *Environ Res, 164*, S. 475-487.

[3] Dilts, R. (1994). *Die Veränderung von Glaubenssystemen* (5. Ausg.). Paderborn: Junfermann-Verlag.

[3a] Dominy, S. S., Lynch, C., Ermini, F., Benedyk, M., Marczyk, A., Konradi, A., . . . Dragunow, M. (23. Jan 2019). Porphyromonas gingivalis in Alzheimer's disease brains: Evidence for disease causation and treatment with small-molecule inhibitors. *Sci Adv, 5*(1), S. eaau3333.

[4] Eisenburger, M. (2012). *Menschen mit Demenz verstehen - Bewegung baut Brücken.* Hannover: Vincentz Network.

[4a] Ernsting, R. (2018). Kommunikation über Atmung und Stimme. *Deutsche Zeitschrift für zahnärztliche Hypnose*, S. 8-11.

[5] Ferreira, P. C., Piai Kde, A., Takayanagui, A. M., & Segura-Muñoz, S. I. (Jan-Feb 2008). Aluminum as a risk factor for Alzheimer's disease. *Rev Lat Am Enfermagem, 16*(1), S. 151-157.

[6] Haberstroh, J., & Pantel, J. (2011). *Kommunikation bei Demenz - TANDEM Trainingsmanual.* Berlin, Heidelberg: Springer-Verlag.

[7] Hirano, Y., & Onozuka, M. (Jan 2014). Chewing and cognitive function. *Brain Nerve, 66*(1), S. 25-32.

[8] Kastner, U., & Löbach, R. (2007). *Handbuch Demenz.* München: Elsevier Urban&Fischer Verlag.

[9] Müller-Hergl, C. (2003). Die Herausforderung sozialer Beziehungen. In U. Schindler (Hrsg.), *Die Pflege demenziell erkrankter neu erleben - Mäeutik im Praxisalltag.* Hannover: Vincentz-Network.

[10] Muthesius, D., Sonntag, J., Warme, B., & Falk, M. (2010). *Musik - Demenz - Begegnung; Musiktherapie für Menschen mit Demenz.* Stuttgart: Mabuse-Verlag.

[10a] Ranjan, R., Rout, M., Mishra, M., & Kore, S. A. (Mar-Apr 2019). Tooth loss and dementia: An oro-neural connection. A cross-sectional study. *J Indian Soc Periodontol, 23*(2), S. 158-162.

[11] Stoppe, G., & Müller, F. (2010). Demenzerrkankungen und ihre Berücksichtigung in der zahnärztlichen Behandlung. In F. Müller, & I. Nitschke (Hrsg.), *Der alte Patient in der zahnärztlichen Praxis* (S. 75-83). Berlin, Chicago, Tokio, Barcelona, Istanbul, London, Mailand, Moskau, Neu Delhi, Paris, Peking, Prag, Sao Paulo, Seoul, Warschau: Quintessenz.

[12] Watzlawick, P., Beavin, J. H., & Jackson, D. D. (1967). *One cannot not communicate.* New York: W. W. Norton.

[13] Wojnar, J. (2005). *Abschied von den Spielregeln der Kultur - demenzielles Verhalten verstehen.* Hannover: Vincentz Network.

[14] Wolf, H., & Gertz, H. J. (Okt 2004). Vaskuläre Demenzen - Diagnostik, Prävention und Therapie. *Psychiatr Prax, 31*(7), S. 330-338.

[1] Baer, U., & Schotte, G. (2009). *Das Herz wird nicht dement.* Neukirchen-Vluyn: Affenkönig-Verlag.

[2] Calderón-Garcidueñas, L., Gónzalez-Maciel, A., Reynoso-Robles, R., Delgado-Chávez, R., Mukherjee, P. S., Kulesza, R. J., . . . Villarreal-Ríos, R. (Jul 2018). Hallmarks of Alzheimer disease are evolving relentlessly in Metropolitan Mexico City infants, children and young adults. APOE4 carriers have higher suicide risk and higher odds of reaching NFT stage V at ≤ 40 years of age. *Environ Res, 164*, S. 475-487.

[3] Dilts, R. (1994). *Die Veränderung von Glaubenssystemen* (5. Ausg.). Paderborn: Junfermann-Verlag.

[3a] Dominy, S. S., Lynch, C., Ermini, F., Benedyk, M., Marczyk, A., Konradi, A., . . . Dragunow, M. (23. Jan 2019). Porphyromonas gingivalis in Alzheimer's disease brains: Evidence for disease causation and treatment with small-molecule inhibitors. *Sci Adv, 5*(1), S. eaau3333.

[4] Eisenburger, M. (2012). *Menschen mit Demenz verstehen - Bewegung baut Brücken.* Hannover: Vincentz Network.

[4a] Ernsting, R. (2018). Kommunikation über Atmung und Stimme. *Deutsche Zeitschrift für zahnärztliche Hypnose*, S. 8-11.

[5] Ferreira, P. C., Piai Kde, A., Takayanagui, A. M., & Segura-Muñoz, S. I. (Jan-Feb 2008). Aluminum as a risk factor for Alzheimer's disease. *Rev Lat Am Enfermagem, 16*(1), S. 151-157.

[6] Haberstroh, J., & Pantel, J. (2011). *Kommunikation bei Demenz - TANDEM Trainingsmanual.* Berlin, Heidelberg: Springer-Verlag.

[7] Hirano, Y., & Onozuka, M. (Jan 2014). Chewing and cognitive function. *Brain Nerve, 66*(1), S. 25-32.

[8] Kastner, U., & Löbach, R. (2007). *Handbuch Demenz.* München: Elsevier Urban&Fischer Verlag.

[9] Müller-Hergl, C. (2003). Die Herausforderung sozialer Beziehungen. In U. Schindler (Hrsg.), *Die Pflege demenziell erkrankter neu erleben - Mäeutik im Praxisalltag.* Hannover: Vincentz-Network.

[10] Muthesius, D., Sonntag, J., Warme, B., & Falk, M. (2010). *Musik - Demenz - Begegnung; Musiktherapie für Menschen mit Demenz.* Stuttgart: Mabuse-Verlag.

[10a] Ranjan, R., Rout, M., Mishra, M., & Kore, S. A. (Mar-Apr 2019). Tooth loss and dementia: An oro-neural connection. A cross-sectional study. *J Indian Soc Periodontol, 23*(2), S. 158-162.

[11] Stoppe, G., & Müller, F. (2010). Demenzerrkankungen und ihre Berücksichtigung in der zahnärztlichen Behandlung. In F. Müller, & I. Nitschke (Hrsg.), *Der alte Patient in der zahnärztlichen Praxis* (S. 75-83). Berlin, Chicago, Tokio, Barcelona, Istanbul, London, Mailand, Moskau, Neu Delhi, Paris, Peking, Prag, Sao Paulo, Seoul, Warschau: Quintessenz.

[12] Watzlawick, P., Beavin, J. H., & Jackson, D. D. (1967). *One cannot not communicate.* New York: W. W. Norton.

[13] Wojnar, J. (2005). *Abschied von den Spielregeln der Kultur - demenzielles Verhalten verstehen.* Hannover: Vincentz Network.

[14] Wolf, H., & Gertz, H. J. (Okt 2004). Vaskuläre Demenzen - Diagnostik, Prävention und Therapie. *Psychiatr Prax, 31*(7), S. 330-338.

ZMK 6/2019 (35), 423-428

Mundgesundheit durch Ernährung

PD Dr. Johan Wölber

1. Adler CJ, Dobney K, Weyrich LS, Kaidonis J, Walker AW, Haak W, Bradshaw CJA, Townsend G, Sołtysiak A, Alt KW, Parkhill J, Cooper A: Sequencing ancient calcified dental plaque shows changes in oral microbiota with dietary shifts of the Neolithic and Industrial revolutions. Nat Genet 45, 450–455, 455e1 (2013).

2. Anon. Guideline: Sugars intake for adults and children. Geneva: World Health Organization; 2015. www.ncbi.nlm.nih.gov/books/NBK285537/ [letzter Zugriff: 23.4.2019].

3. Augustin LSA, Kendall CWC, Jenkins DJA, Willett WC, Astrup A, Barclay AW, Björck I, Brand-Miller JC, Brighenti F, Buyken AE, Ceriello A, La Vecchia C, Livesey G, Liu S, Riccardi G, Rizkalla SW, Sievenpiper JL, Trichopoulou A, Wolever TMS, Baer-Sinnott S, Poli A: Glycemic index, glycemic load and glycemic response: An International Scientific Consensus Summit from the International Carbohydrate Quality Consortium (ICQC). Nutr Metab Cardiovasc Dis 25, 795–815 (2015).

4. Baggerly CA, Cuomo RE, French CB, Garland CF, Gorham ED, Grant WB, Heaney RP, Holick MF, Hollis BW, McDonnell SL, Pittaway M, Seaton P, Wagner CL, Wunsch A: Sunlight and vitamin D: necessary for public health. J Am Coll Nutr 34, 359–365 (2015).

5. Basu S, Yoffe P, Hills N, Lustig RH: The relationship of sugar to population-level diabetes prevalence: An econometric analysis of repeated cross-sectional data. PLOS ONE 8, e57873 (2013).

6. Baumgartner S, Imfeld T, Schicht O, Rath C, Persson RE, Persson GR: The impact of the stone age diet on gingival conditions in the absence of oral hygiene. J Periodontol 80, 759–768 (2009).

7. Bosma-den Boer MM, van Wetten M-L, Pruimboom L: Chronic inflammatory diseases are stimulated by current lifestyle: how diet, stress levels and medication prevent our body from recovering. Nutr Metab (Lond) 9, 32 (2012).

8. Carlson JL, Erickson JM, Lloyd BB, Slavin JL: Health effects and sources of prebiotic dietary fiber. Curr Dev Nutr 2, nzy005 (2018).

9. Cashman KD, Dowling KG, Škrabáková Z, Gonzalez-Gross M, Valtueña J, De Henauw S, Moreno L, Damsgaard CT, Michaelsen KF, Mølgaard C, Jorde R, Grimnes G, Moschonis G, Mavrogianni C, Manios Y, Thamm M, Mensink GB, Rabenberg M, Busch MA, Cox L, Meadows S, Goldberg G, Prentice A, Dekker JM, Nijpels G, Pilz S, Swart KM, van Schoor NM, Lips P, Eiriksdottir G, Gudnason V, Cotch MF, Koskinen S, Lamberg-Allardt C, Durazo-Arvizu RA, Sempos CT, Kiely M: Vitamin D deficiency in Europe: pandemic? Am J Clin Nutr 103, 1033–1044 (2016).

10. Chapple ILC, Milward MR, Dietrich T: The prevalence of inflammatory periodontitis is negatively associated with serum antioxidant concentrations. J Nutr 137, 657–664 (2007).

11. Chee B, Park B, Fitzsimmons T, Coates AM, Bartold PM: Omega-3 fatty acids as an adjunct for periodontal therapy-a review. Clin Oral Investig 20, 879–894 (2016).

12. Chopra A, Thomas BS, Sivaraman K, Prasad HK, Kamath SU: Green tea intake as an adjunct to mechanical periodontal therapy for the management of mild to moderate chronic periodontitis: A randomized controlled clinical trial. Oral Health Prev Dent 14, 293–303 (2016).

13. Coogan MM, Mackeown JM, Galpin JS, Fatti LP. Microbiological impressions of teeth, saliva and dietary fibre can predict caries activity. J Dent 36, 892–899 (2008).

14. Deore GD, Gurav AN, Patil R, Shete AR, Naiktari RS, Inamdar SP: Omega 3 fatty acids as a host modulator in chronic periodontitis patients: a randomised, double-blind, palcebo-controlled, clinical trial. J Periodontal Implant Sci 44, 25–32 (2014).

15. Deutsche Gesellschaft für Ernährung. 12. Ernährungsbericht. Bonn (2012).

16. Dinu M, Abbate R, Gensini GF, Casini A, Sofi F: Vegetarian, vegan diets and multiple health outcomes: A systematic review with meta-analysis of observational studies. Crit Rev Food Sci Nutr 57, 3640–3649 (2017).

17. Dommisch H, Kuzmanova D, Jönsson D, Grant M, Chapple I: Effect of micronutrient malnutrition on periodontal disease and periodontal therapy. Periodontol 2000 78, 129–153 (2018).

18. Ebersole JL, Lambert J, Bush H, Huja PE, Basu A: Serum nutrient levels and aging effects on periodontitis. Nutrients 10, Seitenzahlen (2018).

19. Elkhouli AM: The efficacy of host response modulation therapy (omega-3 plus low-dose aspirin) as an adjunctive treatment of chronic periodontitis (clinical and biochemical study). J Periodont Res 46, 261–268 (2011).

20. El-Sharkawy H, Aboelsaad N, Eliwa M, Darweesh M, Alshahat M, Kantarci A, Hasturk H, Van Dyke TE: Adjunctive treatment of chronic periodontitis with daily dietary supplementation with omega-3 Fatty acids and low-dose aspirin. J Periodontol 81, 1635–1643 (2010).

21. Elwakeel NM, Hazaa HH: Effect of omega 3 fatty acids plus low-dose aspirin on both clinical and biochemical profiles of patients with chronic periodontitis and type 2 diabetes: a randomized double blind placebo-controlled study. J Periodont Res 50, 721–729 (2015).

22. Frei B, Birlouez-Aragon I, Lykkesfeldt J: Authors' perspective: What is the optimum intake of vitamin C in humans? Crit Rev Food Sci Nutr 52, 815–829 (2012).

23. Fuchs MA, Sato K, Niedzwiecki D, Ye X, Saltz LB, Mayer RJ, Mowat RB, Whittom R, Hantel A, Benson A, Atienza D, Messino M, Kindler H, Venook A, Ogino S, Wu K, Willett WC, Giovannucci EL, Meyerhardt JA: Sugar-sweetened beverage intake and cancer recurrence and survival in CALGB 89803 (Alliance). PLoS ONE 9, e99816 (2014).

24. Fuhrman J, Sarter B, Glaser D, Acocella S: Changing perceptions of hunger on a high nutrient density diet. Nutr J 9, 51 (2010).

25. Gaur S, Agnihotri R: Trace mineral micronutrients and chronic periodontitis – a review. Biol Trace Elem Res 176, 225–238 (2017).

26. Graziani F, Discepoli N, Gennai S, Karapetsa D, Nisi M, Bianchi L, Rosema NAM, Van der Velden U: The effect of twice daily kiwifruit consumption on periodontal and systemic conditions before and after treatment: A randomized clinical trial. J Periodontol 89, 285–293 (2018).

27. Greer A: An anti-inflammatory diet: the next frontier in preventive medicine. JAAPA 25, 38, 40, 42 passim (2012).

28. Howes M-JR, Simmonds MSJ: The role of phytochemicals as micronutrients in health and disease. Curr Opin Clin Nutr Metab Care 17, 558–566 (2014).

29. Hublin J-J, Ben-Ncer A, Bailey SE, Freidline SE, Neubauer S, Skinner MM, Bergmann I, Le Cabec A, Benazzi S, Harvati K, Gunz P: New fossils from Jebel Irhoud, Morocco and the pan-African origin of Homo sapiens. Nature 546, 289–292 (2017).

30. Hujoel PP: Dietary carbohydrates and dental-systemic diseases. J Dent Res 88, 490–502 (2009).

31. Hujoel PP: Vitamin D and dental caries in controlled clinical trials: systematic review and meta-analysis. Nutr Rev 71, 88–97 (2013).

32. Jafar N, Edriss H, Nugent K: The effect of short-term hyperglycemia on the innate immune system. Am J Med Sci 351, 201–211 (2016).

33. Jockel-Schneider Y, Goßner SK, Petersen N, Stölzel P, Hägele F, Schweiggert RM, Haubitz I, Eigenthaler M, Carle R, Schlagenhauf U: Stimulation of the nitrate-nitrite-NO-metabolism by repeated lettuce juice consumption decreases gingival inflammation in periodontal recall patients: a randomized, double-blinded, placebo-controlled clinical trial. J Clin Periodontol 43, 603–608 (2016).

34. Kassebaum NJ, Bernabé E, Dahiya M, Bhandari B, Murray CJL, Marcenes W: Global burden of severe tooth loss: A systematic review and meta-analysis. J Dent Res 93, 20S–28S (2014).

35. Knüppel A, Shipley MJ, Llewellyn CH, Brunner EJ: Sugar intake from sweet food and beverages, common mental disorder and depression: prospective findings from the Whitehall II study. Sci Rep 7, 6287 (2017).

36. Kobayashi J, Ohtake K, Uchida H: NO-rich diet for lifestyle-related diseases. Nutrients 7, 4911–4937 (2015).

37. Kollath W: Die Ordnung unserer Nahrung. Stuttgart: Georg Thieme Verlag (2005).

38. Kotsakis GA, Chrepa V, Shivappa N, Wirth M, Hébert J, Koyanagi A, Tyrovolas S: Diet-borne systemic inflammation is associated with prevalent tooth loss. Clin Nutr Band, Seitenzahlen (2017).

39. Krall EA, Wehler C, Garcia RI, Harris SS, Dawson-Hughes B: Calcium and vitamin D supplements reduce tooth loss in the elderly. Am J Med 111, 452–456 (2001).

40. Lang NP, Schätzle MA, Löe H: Gingivitis as a risk factor in periodontal disease. J Clin Periodontol 36 (Suppl 10), 3–8 (2009).

41. Lidder S, Webb AJ: Vascular effects of dietary nitrate (as found in green leafy vegetables and beetroot) via the nitrate-nitrite-nitric oxide pathway. Br J Clin Pharmacol 75, 677–696 (2013).

42. Lips P: Vitamin D physiology. Prog Biophys Mol Biol 92, 4–8 (2006).

43. Liu C-Y, Hsu Y-H, Wu M-T, Pan P-C, Ho C-K, Su L, Xu X, Li Y, Christiani DC, Kaohsiung Leukemia Research Group: Cured meat, vegetables, and bean-curd foods in relation to childhood acute leukemia risk: a population based case-control study. BMC Cancer 9, 15 (2009).

44. Löe H, Theilade E, Jensen SB: Experimental gingivitis in man. J Periodontol 36, 177–187 (1965).

45. Machida T, Tomofuji T, Ekuni D, Azuma T, Takeuchi N, Maruyama T, Mizutani S, Kataoka K, Kawabata Y, Morita M: Severe periodontitis is inversely associated with coffee consumption in the maintenance phase of periodontal treatment. Nutrients 6, 4476–4490 (2014).

46. Maniam J, Antoniadis CP, Youngson NA, Sinha JK, Morris MJ: Sugar consumption produces effects similar to early life stress exposure on hippocampal markers of neurogenesis and stress response. Front Mol Neurosci 8, 86 (2015).

47. Miller SC, Roth H, Witkin GJ: Nutrition and diet in periodontic practice. J Periodontol 21, 59–66 (1950).

48. Miller WD: The micro-organisms of the human mouth. The local and general diseases which are caused by them. 1890. Reprinted by S Karger, Basel (1973).

49. Mohanty P, Hamouda W, Garg R, Aljada A, Ghanim H, Dandona P: Glucose challenge stimulates reactive oxygen species (ROS) generation by leucocytes. J Clin Endocrinol Metab 85, 2970–2973 (2000).

50. Moynihan P: Sugars and dental caries: evidence for setting a recommended threshold for intake. Adv Nutr 7, 149–156 (2016).

51. Myles IA: Fast food fever: reviewing the impacts of the Western diet on immunity. Nutr J 13, 61 (2014).

52. Narotzki B, Reznick AZ, Aizenbud D, Levy Y: Green tea: a promising natural product in oral health. Arch Oral Biol 57, 429–435 (2012).

53. NCD Risk Factor Collaboration (NCD-RisC): Trends in adult body-mass index in 200 countries from 1975 to 2014: a pooled analysis of 1698 population-based measurement studies with 19·2 million participants. Lancet 387, 1377–1396 (2016).

54. Ng N, Kaye EK, Garcia RI: Coffee consumption and periodontal disease in males. J Periodontol 85, 1042–1049 (2014).

55. Petersen PE, Ogawa H: Strengthening the prevention of periodontal disease: the WHO approach. J Periodontol 76, 2187–2193 (2005).

56. Rauma AL, Törrönen R, Hänninen O, Verhagen H, Mykkänen H: Antioxidant status in long-term adherents to a strict uncooked vegan diet. Am J Clin Nutr 62, 1221–1227 (1995).

57. Rizzo G, Laganà AS, Rapisarda AMC, La Ferrera GMG, Buscema M, Rossetti P, Nigro A, Muscia V, Valenti G, Sapia F, Sarpietro G, Zigarelli M, Vitale SG: Vitamin B12 among vegetarians: status, assessment and supplementation. Nutrients 8, Seitenzahlen (2016).

58. Salazar CR, Laniado N, Mossavar-Rahmani Y, Borrell LN, Qi Q, Sotres-Alvarez D, Morse DE, Singer RH, Kaplan RC, Badner V, Lamster IB: Better-quality diet is associated with lower odds of severe periodontitis in US Hispanics/Latinos. J Clin Periodontol 45, 780–790 (2018).

59. Sanchez A, Reeser JL, Lau HS, Yahiku PY, Willard RE, McMillan PJ, Cho SY, Magie AR, Register UD: Role of sugars in human neutrophilic phagocytosis. Am J Clin Nutr 26, 1180–1184 (1973).

60. Schulze-Lohmann P: Slow Carb statt Low Carb. ZWR – Das Deutsche Zahnärzteblatt 124, 176–179 (2015).

61. Simopoulos AP: Evolutionary aspects of diet, the omega-6/omega-3 ratio and genetic variation: nutritional implications for chronic diseases. Biomedicine & Pharmacotherapy 60, 502–507 (2006).

62. Sleeth ML, Thompson EL, Ford HE, Zac-Varghese SEK, Frost G: Free fatty acid receptor 2 and nutrient sensing: a proposed role for fibre, fermentable carbohydrates and short-chain fatty acids in appetite regulation. Nutr Res Rev 23, 135–145 (2010).

63. Slomka V, Hernandez-Sanabria E, Herrero ER, Zaidel L, Bernaerts K, Boon N, Quirynen M, Teughels W: Nutritional stimulation of commensal oral bacteria suppresses pathogens: the prebiotic concept. J Clin Periodontol 44, 344–352 (2017).

64. de Soet JJ, Nyvad B, Kilian M: Strain-related acid production by oral streptococci. Caries Res 34, 486–490 (2000).

65. Souza JGS, Cury JA, Ricomini Filho AP, Feres M, Faveri M de, Barão VAR: Effect of sucrose on biofilm formed in situ on titanium material. J Periodontol 90, 141–148 (2019).

66. Staudte H, Kranz S, Völpel A, Schütze J, Sigusch BW: Comparison of nutrient intake between patients with periodontitis and healthy subjects. Quintessence Int 43, 907–916 (2012).

67. Staudte H, Sigusch BW, Glockmann E: Grapefruit consumption improves vitamin C status in periodontitis patients. Br Dent J 199, 213–217, discussion 210 (2005).

68. Staufenbiel I, Weinspach K, Förster G, Geurtsen W, Günay H: Periodontal conditions in vegetarians: a clinical study. Eur J Clin Nutr 67, 836–840 (2013).

69. Ströhle A, Wolters M, Hahn A: Präventives Potenzial von Ballaststoffen – Ernährungsphysiologie und Epidemiologie. Aktuelle Ernährungsmedizin 43, 179–200 (2018).

70. Sutton G: Putrid gums and “dead men”s cloaths’: James Lind aboard the Salisbury. J R Soc Med 96, 605–608 (2003).

71. Te Morenga LA, Howatson AJ, Jones RM, Mann J: Dietary sugars and cardiometabolic risk: systematic review and meta-analyses of randomized controlled trials of the effects on blood pressure and lipids. Am J Clin Nutr 100, 65–79 (2014).

72. The Lancet null: We need to talk about meat. Lancet 392, 2237 (2018).

73. Van der Velden U, Kuzmanova D, Chapple ILC: Micronutritional approaches to periodontal therapy. J Clin Periodontol 38 (Suppl 11), 142–158 (2011).

74. Van Der Weijden F, Slot DE: Oral hygiene in the prevention of periodontal diseases: the evidence. Periodontology 2000 55, 104–123 (2011).

75. Varela-López A, Giampieri F, Bullón P, Battino M, Quiles JL: A systematic review on the implication of minerals in the onset, severity and treatment of periodontal disease. Molecules 21, Seitenzahlen (2016).

76. Viguiliouk E, Stewart SE, Jayalath VH, Ng AP, Mirrahimi A, de Souza RJ, Hanley AJ, Bazinet RP, Blanco Mejia S, Leiter LA, Josse RG, Kendall CWC, Jenkins DJA, Sievenpiper JL: Effect of replacing animal protein with plant protein on glycemic control in diabetes: A systematic review and meta-analysis of randomized controlled trials. Nutrients 7, 9804–9824 (2015).

77. Vos MB, Kaar JL, Welsh JA, Van Horn LV, Feig DI, Anderson CAM, Patel MJ, Cruz Munos J, Krebs NF, Xanthakos SA, Johnson RK, American Heart Association Nutrition Committee of the Council on Lifestyle and Cardiometabolic Health; Council on Clinical Cardiology; Council on Cardiovascular Disease in the Young; Council on Cardiovascular and Stroke Nursing; Council on Epidemiology and

Prevention; Council on Functional Genomics and Translational Biology; and Council on Hypertension: Added sugars and cardiovascular disease risk in children: A scientific statement from the American Heart Association. Circulation 135, e1017–e1034 (2017).

78. Widén C, Coleman M, Critén S, Karlgren-Andersson P, Renvert S, Persson GR: Consumption of bilberries controls gingival inflammation. Int J Mol Sci 16, 10665–10673 (2015).

79. Willershausen B, Ross A, Försch M, Willershausen I, Mohaupt P, Callaway A: The influence of micronutrients on oral and general health. Eur J Med Res 16, 514–518 (2011).

80. Woelber J, Bremer K, Vach K, König D, Hellwig E, Ratka-Krüger P, Al-Ahmad A, Tennert C: An oral health optimized diet can reduce gingival and periodontal inflammation in humans – a randomized controlled pilot study. BMC Oral Health 17, 28 (2016).

81. Woelber JP, Gärtner M, Breuninger L, Anderson A, König D, Hellwig E, Al-Ahmad A, Vach K, Dötsch A, Ratka-Krüger P, Tennert C: The influence of an anti-inflammatory diet on gingivitis. A randomized controlled trial. J Clin Periodontol Band, Seitenzahlen (2019).

82. Wölber J: Zuckerreduktion zur Prävention von Zahnerkrankungen – warum und wie? Aktuel Ernahrungsmed 43, S76–S79 (2018).

83. Wölber J, Tennert C: Potenzieller Einfluss der prozessierten, einfachen Kohlenhydrate auf parodontale Erkrankungen. Parodontologie 28, 385–389 (2017).

84. Wölber J, Tennert C: Einfluss von Ballaststoffen auf parodontale Entzündungen. Parodontologie 30, 37–41 (2019).

85. van Woudenbergh GJ, Theofylaktopoulou D, Kuijsten A, Ferreira I, van Greevenbroek MM, van der Kallen CJ, Schalkwijk CG, Stehouwer CDA, Ocké MC, Nijpels G, Dekker JM, Blaak EE, Feskens EJM: Adapted dietary inflammatory index and its association with a summary score for low-grade inflammation and markers of glucose metabolism: the Cohort study on Diabetes and Atherosclerosis Maastricht (CODAM) and the Hoorn study. Am J Clin Nutr 98, 1533–1542 (2013).

86. Yates CM, Calder PC, Ed Rainger G: Pharmacology and therapeutics of omega-3 polyunsaturated fatty acids in chronic inflammatory disease. Pharmacol Ther 141, 272–282 (2014).

87. Zong G, Holtfreter B, Scott AE, Völzke H, Petersmann A, Dietrich T, Newson RS, Kocher T: Serum vitamin B12 is inversely associated with periodontal progression and risk of tooth loss: a prospective cohort study. J Clin Periodontol 43, 2–9 (2016).

ZMK 6/2019 (35), S. 416-421

Erfolgreiche Prävention auch in schwierigen Fällen

Dr. Dr. Christiane Gleissner

[1] Amaral JPAR, Marques DNDS, Thomson WM, Vinagre ARR, da Mata ADSP: Validity and reliability of a Portuguese version of the Summated Xerostomia Inventory-5. Gerodontology 35, 33–37 (2018).

[2] Benn AML, Broadbent JM, Thomson WM: Occurrence and impact of xerostomia among dentate adult New Zealanders: findings from a national survey. Australien Dental Journal 60, 362–367 (2015).

[3] Brochet MS, Harry M, Morin F: Nifedipine induced gingival hyperplasie in pregnancy: a case report. Current Drug Safety 12, 3–6 (2017).

[4] Dhanuthai K, Sappayatosok K, Bijaphala P, Kulvitit S, Sereerat T: Prevalence of medically compromised conditions in dental patients. Med Oral Patol Oral Cir Bucal 14, E287–291 (2009).

[5] Heidemann C, Du Y, Paprott R, Haftenberger M, Rathmann W, Scheidt-Nave C: Temporal changes in the prevalence of diagnosed diabetes, undiagnosed diabetes and prediabetes: findings from the German Health Interview and Examination Surveys in 1997–1999 and 2008–2011. Diabet Med 33, 1406–1414 (2016).

[6] Hovstadius B, Astrand B, Petersson G: Dispensed drugs and multiple medications in the Swedish population: an individual-based register study. BMC Clinical Pharmacology 9, 11 (2009).

[7] Jacob M: Beschwerdemanagement: Lösungen für komplexe Fälle. ZMK 34 (10), 702–707 (2018).

[8] Kreutz R: Olmesartan/amlodipine: a review of its use in the management of hypertension. Vascular Health and Risk Management 7, 183–192 (2011).

[9] Livada R, Shiloah J: Calcium channel blocker-induced gingival enlargement. Journal of Human Hypertension 28, 10–14 (2014).

[10] Michel O: Wenn die Spucke wegbleibt. HNO-Nachrichten 42 (5), 42–46 (2012).

[11] Nederfors T, Isaksson R, Mörnstad H, Dahlöf C: Prevalence of perceived symptoms of dry mouth in an adult Swedish population – relation to age, sex and pharmacotherapy. Comunity Dent Oral Epidemiol 25, 211–216 (1997).

[12] Radfar L: Medical profile of a dental school patient population. J Dent Educ 71 (5), 682–686 (2007).

[13] Ristow O, Rückschloß T, Hoffmann J, Freudlsperger C: Medikamenten-assoziierte Kiefernekrosen. ZM 108 (21), 38–52 (2018).

[14] Smeets EC, De Jong KJ, Abraham-Inpijn L: Detecting the medically compromised patient in

dentistry by means of the medical riskrelated history. A survey of 29,424 dental patients in The Netherlands. Prev Med 27, 530–535 (1998).
[15] Thomson WM, van der Putten G-J, de Baat C, Ikebe K, Matsuda K, Enoki K, Hopcraft MS, Ling GY (2011) Shortening the xerostomia inventory. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 112: 322-327.

[16] Whelton PK, Carey RM, Aronow WS, Casey DE Jr, Collins KJ, Dennison Himmelfarb C, DePalma SM, Gidding S, Jamerson KA, Jones DW, MacLaughlin EJ, Muntner P, Ovbiagele B, Smith SC Jr, Spencer CC, Stafford RS, Taler SJ, Thomas RJ, Williams KA Sr, Williamson JD, Wright JT Jr: 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the prevention, detection, evaluation and management of high blodd pressure in adults: a report of the American College of Cardiology/American Heart Association task force on clinical practice guidelines. Hypertension 71 (6), 313–3115 (2018).

[17] Zavras AI, Rosenberg GE, Danielson JD, Cartsos VM: Adverse drug and device reactions in the oral cavity: surveillance and reporting. J Am Dent Assoc 144, 1014–1021 (2013).

ZMK 6/2019 (35), S. 412-414

Compliance mit der unterstützenden Parodontitistherapie (UPT)

So verbessern Sie die Mitwirkung Ihrer Patienten beim Recall

Dr. Wolfgang und Christa Zimmer

[1] Axelsson P, Lindhe J: The significance of maintenance care in the treatment of periodontal disease. J Clin Periodontol 8, 281-294 (1981).

[2] Becker W, Becker BE, Berg LE: Periodontal treatment without maintenance. A retrospective study in 44 patients. J Periodontol. 55, 505-509 (1984).

[3] Agraval N, Jain R, Jain M, Agraval K, Dubey A: Compliance with supportive periodontal therapy among patients with aggressive and chronic periodontitis. J Oral Science 57, 249-254 (2015).

[4] Mendoza A, Newcomb G, Nixon K: Compliance with supportive periodontal therapy. J Periodontol 62, 731-736 (1991).

[5] Gill L, Cassia F, Cameron ID, Kurrle S, Lord S, Fairhall N, Lockwood K, Langron C: Exploring client adherence factors related to clinical outcomes; in: Australasian Marketing Journal (AMJ), Volume 22, Issue 3, 197-204 (2014).

[6] Shah R, Thomas R, Bhandari S, Mehta DS: Influence of various factors on patient compliance after periodontal therapy: A pilot study; in: Journal of Indian Society of Periodontology 21 (1), 50–54 (2017).

[7] Gabler Wirtschaftslexikon: Motivation. https://wirtschaftslexikon.gabler.de/definition/motivation-38456

[8] Achtziger A, Gollwitzer PM, Bergius R, Schalt H: Motivation. In: Wirtz, Markus Antonius (Hg.): Dorsch-Lexikon der Psychologie. 17. Auflage, 2014, Bern: Verlag Hans Huber, Hogrefe, S. 1114.

[9] Achtziger A, Gollwitzer PM: Rubikonmodell der Handlungsphasen. In: Wirtz, Markus Antonius (Hg.): Dorsch-Lexikon der Psychologie.17. Auflage, Bern: Verlag Hans Huber, Hogrefe, S. 1138 f.

[10] Gollwitzer PM: Mindset theory of action phases. In: Lange, P; Krugalski, AW; Higgins, TE (Hg.): Theories of Social Psychology. Band 1. Thousand Oaks, CA: Sage, S. 526-545 (2012).

[11] Achtziger A, Gollwitzer PM: Rubikonmodell der Handlungsphasen, in: Brandstätter Veronika (Hg.): Handbuch der Psychologie; 11, 2009. Göttingen: Hogrefe, 150-156.

[12] Miller WR, Rollnick S: Motivierende Gesprächsführung. 2015, Freiburg: Lambertus-Verlag, S. 187 f.

[13] Amrhein PC, Miller WR, Yahne CE, Palmer M, Fulcher L: Client commitment language during motivational interviewing predicts drug use outcomes, in: Journal of Consulting and Clinical Psychologie 71 (5), 862-78 (2003).

[14] Miller WR, Rollnick S: Motivierende Gesprächsführung. 2015, Freiburg: Lambertus-Verlag, S. 167 ff.

[15] Schneider T, Geckert C: Verhaltensorientierte Compliance - Ansätze und Methoden für die betriebliche Praxis. 2016, Schmidt Erich (Verlag), S. 72.

[16] Miller WR, Rollnick S: Motivierende Gesprächsführung. 2015, Freiburg: Lambertus-Verlag, S. 236 ff.

[17] Heckhausen H, Gollwitzer PM: Thought contents and cognitive functioning in motivational vs. volitional states of mind. Motivation and Emotion 11, 101-120 (1987).

ZMK 35(6) 2019, S. 406-411

Parodontitis & Periimplantitis: Alles eine Frage des Milieus?

Dr. Hans Peter Olbertz

[1] Oral Health in America: A report of the Surgeon General, Executive Summary, Departement of Health and Human Services (2000).

[2] Women's Health Initiative Observational Study: Periodontal disease and breast cancer: prospective cohort study of postmenopausal women. Journal Cancer Epidemiology, Biomarkers & Prevention 25 (1), 43–50 (2015).

[3] Neue Klassifikation der Parodontitis – Staging (Stadien) [Papapanou, et al (2018); Tonetti, et al (2018)]; T. Waller & K. Jepsen. (zm 13/2018) https://www.zm-online.de/archiv/2018/13/zahnmedizin/neue-klassifikation-vorgestellt/

[4] Howells GL: Cytokine networks in destructive periodontal disease. Oral Diseases 1 (4), 266–270 (1995).

[5] Olbertz HP, Spranger H, Lothaller H, Mesenholl E: Orthomolekulare Substitution bei Parodontitis und Regulationsstörungen, eine monozentrische Reproduzierbarkeitsstudie. (college@inter-uni.net), Graz (2005).

[6] Enwonwu CO, Phillips RS, Falkler WA Jr.: Nutrition and oral infectious diseases: state of the science. Compend Contin Educ Dent 23 (5), 431–434, 436, 438 passim; quiz 448 (2002).

[7] Bold G. Die Rolle der Matrix-Metalloproteinase-8 in der Zahnmedizin. Diplomarbeit zur Erlangung des akademischen Grades Doktor der Zahnheilkunde (Dr. med. dent.) an der Medizinischen Universität Graz, ausgeführt an der Klinischen Abteilung für Zahnerhaltungskunde (2010).

[8] Thorbert-Mros S, Larsson L, Kalm J, Berglundh T: Interleukin-17 producing T cells and interleukin-17 mRNA expression in periodontitis and longstanding gingivitis lesions. J Periodontol, 1–6 (2018).

[9] Winkelmann U: Aktive Matrix-Metalloproteinase-8 als Indikator für den Verlauf profunder Parodontitiden nach Therapie. Inaugural-Dissertation zur Erlangung des Doktorgrades der Hohen Medizinischen Fakultät der Rheinischen Friedrich-Wilhelm-Universität Bonn (2012).

[10] Kinane DF: Causation & pathogenesis of periodontal disease Periodontol 2000 25: 8–20 (2001).

[11] Netuschil L, Olbertz H-P, Olbertz R, Volkmann P-H, Arweiler NB: Adjuvante Behandlung therapieresistenter Parodontitis mit Orthomolekularia. Dentale Implantologie und Parodontologie 15 (1), 40–44 (2011). https://www.dimagazin-aktuell.de/parodontologie/story/adjuvante-behandlung-refraktaerer-chronischer-parodontitis-mittels-orthomolekularia--eine-prospektive-pilotstudie-aus-der-praxis__2857.html

[12] (Papapanou PN, Sanz M et al.: Periodontitis: Consensus report of Workgroup 2 of the 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions. J Clin Periodontol 45 [Suppl 20], S162–S170 [2018].)

[13} (Jentsch et al.: Parodontitis-Adipositas-Atherosklerose. Parodontologie 30 (1), 23–36 [2019]).

Literaturangaben zu Silent Inflammation aus: GANZIMMUN DIAGNOSTICS, Fachinformation 0086

Amar J et al. Energy intake is associated with endotoxemia in apparently healthy men. Am J Clin Nutr 2008; 87(5):1219-1223.

Bullon P et al. Mitochondrial dysfunction promoted by Polyphyromonas gingivalis lipopolysachharide as a possible link between cardiovascular disease and periodontits. Free Radic Biol Med 2011; 50(10):1336-1343.

Caesar R, Fak F, Bäckhed F. Effects of gut microbiota on obesity and atherosclerosis via modulation of inflammation and lipid metabolism. J Intern Med 2010; 268(4):320-328.

Creely SJ et al. Lipopolysaccharide activates an innate immune response in human adipose tissue in obesity and type 2 diabetes. Am J Physiol Endocrinol Metab 2006; 292(3):E740-E747.

Ghanim H et al. Increase in plasma endotoxin concentrations and the expression of toll-like receptors and suppressor of cytokine signaling-3 in mononuclear cells after a high-fat, high-carbohydrate meal. Diabetes Care 2009; 32(12):2281-2287.

Ghoshal S et al. Chylomicrons promote intestinal absorption of lipopolysaccharides. J Lip Res 2009; 50(1):90-97.

Hurley JC. Endotoxemia: methods of detection and clinical correlates. Clin Microbiol Rev 1995; 8(2):268-292.

Ilan Y. Leaky gut and the liver: a role for bacterial translocation in nonalcoholic steatohepatitis. World J Gastroenterol 2012; 18(21):2609-2618.

Kebschull M, Demmer RT, Papapanou PN. Epidemiologic and mechanistic evidence linking periodontal infections and atherosclerosis. J Dent Res 2010; 89(9):879-902.

Kelly CJ, Colgan SP, Frank DN. Of microbes and meals: the health consequences of dietary endotoxemia. Nutr Clin Pract 2012;27(2):215-225.

Kitchens RL, Thompson PA. Modulatory effects of sCD14 and LBP on LPS-host cell interactions. J Endotox Res 2005; 11(4):225-229.

Lassenius MI et al. Bacterial endotoxin activity in human serum is associated with dyslipidemia, insulin resistance, obesity, and chronic inflammation. Diabetes Care 2011; 34(8):1809-1815.

Laugerette F et al. Complex links between dietary lipids, endogenous endotoxins and metabolic inflammation. Biochimie 2011;93(1):39-45.

Lira FS et al. Long-term disciplinary therapy reduces endotoxin level and insulin resistance in obese adolescents. Nutr J 2012; 11:74.

Manco M, Putignani L, Bottazzo GF. Gut microbiota, lipopolysaccharides, and innate immunity in the pathogenesis of obesity and cardiovascular risk. Endocrine Rev 2010; 31(6):817-844.

McIntyre CW et al. Circulating endotoxemia: a novel factor in systemic inflammation and cardiovascular disease in chronic kidney disease. Clin J Am Soc Nephrol 2011; 6(1):133-141.

Mehta NN et al. Experimental endotoxemia induces adipose inflammation and insulin resistance in humans. Diabetes 2010; 59(1):172-181.

Pastor Rojo O et al. Serum lipopolysaccharide-binding protein in endotoxemic patients with inflammatory bowel disease. Inflamm Bowel Dis 2007; 13(3):269-277.

Pussinen PJ et al. Severe periodontitis enhances macrophage activation via increased serum lipopolysaccharide. Arterioscler Thromb Vasc Biol 2004; 24(11):2174-2180.

Pussinen PJ et al. Endotoxemia is associated with an increased risk of incident diabetes. Diabetes Care 2011; 34(2):392-397.

Stoll LL, Denning GM, Weintraub NL. Potential role of endotoxin as a proinflammatory mediator of atherosclerosis. Arterioscler Thromb Vasc Biol 2004; 24(12):2227-2236.

Thurman RG. Mechanisms of hepatic toxicity. II. Alcoholic liver injury involves activation of Kupffer cells by endotoxin. Am J Physiol 1998; 275(4):G606-G611.

Wiedermann CJ et al. Association of endotoxemia with carotid atherosclerosis and cardiovascular disease. Prospective Results from the Bruneck Study. J Am Coll Cardiol 1999; 34(7)1975-1981

ZMK 6/2019 (35), 400-405

Wie viel Parodontitis steckt in der Periimplantitis?

Dr. Sylke Dombrowa

1. Amano A: Host-parasite interactions in periodontitis: microbial pathogenicity and innate immunity. Periodontology 2000 54, 9–14 (2010).

2. Beikler T: Ist ein parodontaler Risikofall auch ein Periimplantitis-Risikofall? Quintessenz 67 (9): 1121–1129 (2016).

3. Carcuac O, Abrahamsson I, Albouy JP, Linder E, Larsson L, Berglundh T: Experimental periodontitis and peri-implantitis in dogs. Clin Oral Implants Res 24 (4), 363–371 (2013).

4. Colombo AP, Boches SK, Cotton SL, Max Goodson JM, Kent R, Haffajee AD, Socransky SS, Hasturk H, Van Dyke TE, Paster B: Comparisons of subgingival microbial profiles of refractory periodontitis, severe periodontitis and periodontal health using the human oral microbe identification microarray (HOMIM). J Periodontol 80 (9), 1421–1432 (2009).

5. Diaz PI, Hoare A, Hong BY: Subgingival microbiome shifts and community dynamics in periodontal diseases. CDA Journal 44 (7), 421–435 (2016).

6. DGI Presseinformation, Nov. 2018.

7. Eick S, Ramseier CA, Rothenberger K, Brägger U, Buser D, Salvi G: Microbiota at teeth and implants in partially edentulous patients. A 10-year retrospective study. Clin Oral Impl Res 00, 1–8 (2015).

8. Ezzo P, Cutler CW: Microorganisms as risk indicators for periodontal disease. Periodontol 2000 32, 24–35 (2003).

9. Gruica B, Wang HY, Lang NP, Buser D: Impact of IL-1 genotype and smoking status on the prognosis of osseointegrated implants. Clin Oral Implants Res15 (4), 393–400 (2004).

10. Hajishengallis G: Periodontitis: from microbial immune subversion to systemic inflammation. Nature Reviews Immunology 15, 30–44 (2015).

11. Hajishengallis G, Darveau RP, Curtis MA: The Keystone Pathogen Hypothesis. Nat Rev Microbiol 10 (10), 717–725 (2012).

12. Hamdy A, Ebrahem M: The effect of interleukin-1 allele 2 genotype (IL-1a2889 and IL-1b+3954) on the individual's susceptibility to peri-implantitis: case-control study. J Oral Implantol 17 (3), 325–333 (2011).

13. Heitz-Mayfield LJA, Lang NP. Comparative biology of chronic and aggressive periodontitis vs. perii-implantitis. Periodontology 2000 53, 167–181 (2010).

14. Herrera D, Alonso B, Léon R, Roldán S, Sanz M: Antimicrobial therapy in periodontitis: the use of systemic antimicrobials against the subgingival biofilm. J Clin Periodontol 35 (8), 45–66 (2008).

15. Hoffmann T: Haben wir die Parodontitis im Griff? PN 6 (13), 4 (2016).

16. Huynh-Ba G, Lang NP, Tonetti MS, Salvi GE: The association of the composite IL-1 genotype with periodontitis progression and/or treatment outcomes: a systematic review. J Clin Periodontol 34 (4), 305–317 (2007).

17. Jacobi-Gresser E: Pathogenese der Periimplantitis. Dentale Implantologie 22 (05), 298–305 (2018).

18. Kilian M, Chapple ILC, Hannig M, Marsh PD, Meuric V, Pedersen AML, Tonetti MS, Wade WG, Zaura E: The oral microbiome – an update for oral healthcare professionals. British Dental Journal 10, 657–666 (2016).

19. Kornman KS, Crane A, Wang HY, di Giovine FS, Newman MG, Pirk FW, Wilson TG Jr, Higginbottom FL, Duff GW: The interleukin-1 genotype as a severity factor in adult periodontal disease. J Clin Periodontol 24 (1), 72–77 (1997).

20. Laine ML, Leonhardt A, Roos-Jansaker AM, Pena AS, van Winkelhoff AJ, Winkel EG, Renvert S: IL-1RN gene polymorphism is associated with peri-implantitis. Clin Oral Impl Res 17, 380–385 (2006).

21. Liao J, Li C, Wang Y, Ten M, Sun X, Tian A, Zhang Q, Liang X: Meta-analysis of the association between common interleukin-1 polymorphisms and dental implant failure. Mol Biol Rep 41 (5), 2789 –2798 (2014).

22. Marsh PD: Microbial ecology of dental plaque and its significance in health and disease. Adv Dent Res 8 (2): 263–271 (1994).

23. Marsh PD, Zaura E: Dental biofilm: ecological interactions in health and disease. J Clin Periodontol 44 (Suppl. 18), 12–22 (2017).

24. McGuire MK, Nunn ME: Prognosis versus actual outcome. IV. The effectiveness of clinical parameters and IL-1 genotype in accurately predicting prognoses and tooth survival. J Periodontol 70 (1), 49–56 (1999).

25. Mombelli A: Microbiology and antimicrobial therapy of peri-implantitis. Periodontology 2000 28, 177–189 (2002).

26. Persson R: Parodontitis und Periimplantitis: Gemeinsame Ätiologie? ZahnPrax 12 (3), 160–168 (2009).

27. Position Paper: Systemic antibiotics in periodontics. J Periodontol 75, 1553–1565 (2004).

28. Rabelo CC , Feres M, Goncalves C, Figueiredo LC, Faveri M, Tu Y-K, Chambrone L: Systemic antibiotics in the treatment of aggressive periodontitis. A systematic review and a Bayesian Network meta-analysis. J Clin Periodontol 42, 647–657 (2015).

29. Rössler R: Risikomanagement in der Vor- und Nachsorge von Implantatpatienten. ZMK 11, 742–746 (2007).

30. Schütt S: Parodontitis – eine immunologische Erkrankung mit genetischer Komponente. ZWR 120 (3), 94–101 (2011)

31. Schwarz F, Derks J, Monje A, Wang H-L: Peri-implantitis. J Clin Periodontol 45 (20), 246–266 (2018).

32. Shi B, Chang M, Martin J, Mitreva M, Lux R, Klokkevold P, Sodergren E, Weinstock M, Haake SK, Li H: Dynamic changes in the subgingival microbiome and their potential for diagnosis and prognosis of periodontitis. mBio 6 (1), 1–11 (2015).

33. Sigusch B, Höft HD, Rabold C, Pfister W. Profile parodontalpathogener Bakterien bei Implantatpatienten. ZWR 115 (12), 547–551 (2006).

34. Simon I, Dannewitz B: Parodontologisches Recall – eine Investition in die Zukunft. Wissen kompakt 1, 41–52 (2007).

35. Smeets R, Henninsen A, Jung O, Heiland M, Hammächer C, Stein JM: Definition, etiology, prevention and treatment of peri-implantitis – a review. Head & Face Medicine 10, 10–34 (2014).

36. Socransky SS, Haffajee AD, Cugini MA, Smith C, Kent RL: Microbial complexes in subgingival plaque. J Clin Peridontol 25, 134–144 (1998).

37. Socransky SS, Smith C, Haffajee AD: Subgingival microbial profiles in refractory periodontal disease. J Clin Periodontol 29, 260–268 (2002).

38. Tabanella G, Nowzari H, Slots J: Clinical and microbiological determinants of ailing dental implants. Clin Implant Dent Relat Res 11 (1), 24–36 (2008).

39. Tallarico M, Canullo L, Caneva M, Özcan M. Microbial colonization at the implant-abutment interface and its possible influence on periimplantitis: A systematic review and meta-analysis. Journal of Prosthodontic Research 61 (3), 233–241 (2017).

40. Van de Waal Y, Eijsbouts HV, Winkel EG, van Winkelhoff AJ: Microbial characteristics of peri-implantitis: A case-control study. J Periodontol 88 (2), 209–217 (2017).

41. Van Winkelhoff AJ, Winkel EG: Microbiological diagnostics in periodontics: biological significance and clinical validity. Periodontology 2000 39, 40–52 (2005).

42. Wiegreffe M, Güntsch A: Parodontitis vs. Periimplantitis. ZWR 127, 24–34 (2018).

43. Ziebolz D, Schmalz G, Rinke S: Periimplantäre Erkrankungen – erkennen, therapieren und vorbeugen. Teil 1: Erkennen – Grundlagen und Diagnostik. Prophylaxe Journa l56, 11 (2016).

44. Zitzmann NU, Walter C., Berglundh T: Ätiologie, Diagnostik und Therapie der Periimplantitis – eine Übersicht. DZZ 61, 642–649 (2006).

ZMK 6/2019 (35), 392-399

Komplikationsmanagment in der Implantatprothetik

Dr. Benjamin Hundeshagen

Literatur:

[1] Aglietta M, Siciliano VI, Zwahlen M, Bragger U, Pjetursson BE, Lang NP, Salvi GE: A systematic review of the survival and complication rates of implant supported fixed dental prostheses with cantilever extensions after an observation period of at least 5 years Clin Oral Implants Res 20, 441–451 (2009).

[2] Arisan V, Bölükbaşi N, Ersanli S, Ozdemir T: Evaluation of 316 narrow diameter implants followed for 5–10 years: a clinical and radiographic retrospective study. Clin Oral Implants Res 21 (3), 296–307 (2010).

[3] Bragger U, Hirt-Steiner S, Schnell N, Schmidlin K, Salvi GE, Pjetursson B, Matuliene G, Zwahlen M, Lang NP: Complication and failure rates of fixed dental prostheses in patients treated for periodontal disease. Clin Oral Implants Res 22, 70–77 (2011).

[4] Bragger U, Karoussis I, Persson R, Pjetursson B, Salvi G, Lang N: Technical and biological complications/failures with single crowns and fixed partial dentures on implants: a 10-year prospective cohort study. Clin Oral Implants Res 16, 326–334 (2005).

[5] Butz F, Heydecke G, Okutan M, Strub JR: Survival rate, fracture strength and failure mode of ceramic implant abutments after chewing simulation. J Oral Rehabil 32, 838–843 (2005).

[6] Calderon PS, Dantas PM, Montenegro SC, Carreiro AF, Oliveira AG, Dantas EM, Gurgel BC: Technical complications with implant-supported dental prostheses. J Oral Sci 56 (2), 179–184 (2014).

[7] Cehreli MC, Karasoy D, Kokat AM, Akca K, Eckert SE: Systematic review of prosthetic maintenance requirements for implant-supported overdentures. Int J Oral Maxillofac Implants 25, 163–180 (2010).

[8] Goodacre CJ, Bernal G, Rungcharassaeng K, Kan JY: Clinical complications in fixed prosthodontics. J Prosthet Dent 90, 31–41 (2003).

[9] Heckmann SM, Schrott A, Graef F, Wichmann MG, Weber HP: Mandibular two-implant telescopic overdentures. Clin Oral Implants Res 15, 560–569 (2004).

[10] Howe MS, Keys W, Richards D: Long-term (10-year) dental implant survival: A systematic review and sensitivity meta-analysis. J Dent; 84: 9–21 (2019).

[11] Jung RE, Pjetursson BE, Glauser R, Zembic A, Zwahlen M, Lang NP: A systematic review of the 5-year survival and complication rates of implantsupported single crowns. Clin Oral Implants Res 19, 119–130 (2008).

[12] Krennmair G, Weinlander M, Krainhofner M, Piehslinger E: Implant-supported mandibular overdentures retained with ball or telescopic crown attachments: a 3-year prospective study. Int J Prosthodont 19, 164–170 (2006).
[13] Kreissl ME, Gerds T, Muche R, Heydecke G, Strub JR: Technical complications of implant-supported fixed partial dentures in partially edentulous cases after an average observation period of 5 years. Clin Oral Implants Res 18, 720–726 (2007).
[14] Lee DW, Kim NH, Lee Y, Oh YA, Lee JH, You HK: Implant fracture failure rate and potential associated risk indicators: An up to 12-year retrospective study of implants in 5,124 patients. Clin Oral Implants Res 30 (3), 206–217 (2019).
[15] Mohanty R, Sudan PS, Dharamsi AM, Mokashi R, Misurya AL, Kaushal P: Risk assessment in long-term survival rates of dental implants: A prospective clinical study. J Contemp Dent Pract 19 (5), 587–590 (2018).
[16] Lee JH, Lee JB, Park JI, Choi SH, Kim YT: Mechanical complication rates and optimal horizontal distance of the most distally positioned implant-supported single crowns in the posterior region: A study with a mean follow-up of 3 years. J Prosthodont Band, Seeitenzahlen (2015).
[17] Pjetursson BE, Bragger U, Lang NP, Zwahlen M: Comparison of survival and complication rates of tooth-supported fixed dental prostheses (FDPs) and implant-supported FDPs and single crowns (SCs). Clin Oral Implants Res 18 (Suppl 3), 97–113 (2007).
[18] Purcell BA, McGlumphy EA, Holloway JA, Beck FM: Prosthetic complications in mandibular metal-resin implant-fixed complete dental prostheses: a 5- to 9-year analysis Int J Oral Maxillofac Implants 23, 847–857 (2008).
[19] Renouard F, Rangert B: Risikofaktoren in der Implantologie. Berlin: Quintessenz (2006).
[20] Sailer I, Philipp A, Zembic A, Pjetursson BE, Hammerle CH, Zwahlen M: A systematic review of the performance of ceramic and metal implant abutments supporting fixed implant reconstructions. Clin Oral Implants Res 20 (Suppl 4), 4–31 (2009).
[21] Salvi GE, Brägger U: Mechanical and technical risks in implant therapy. Int J Oral Maxillofac Implants 24 (suppl), 69–85 (2009).
[22] Sanchez-Perez A, Moya-Villaescusa MJ, Jornet-Garcia A, Gomez S: Etiology, risk factors and management of implant fractures. Med Oral Patol Oral Cir Bucal 15, 504–508 (2010).
[23] Visser A, Raghoebar GM, Meijer HJ, Vissink A: Implant-retained maxillary overdentures on milled bar suprastructures: a 10-year follow-up of surgical and prosthetic care and aftercare. Int J Prosthodont 22, 181–192 (2009).
[24] Zinsli B, Sagesser T, Mericske E, Mericske-Stern R: Clinical evaluation of small-diameter ITI implants: a prospective study. Int J Oral Maxillofac Implants 19, 92–99 (2004).

Kommentar [AK1]: Bitte Bandangabe und Seitenzahlen ergänzen

ZMK 6 (35), 386-390

Osseointegration von Implantaten in Verbindung mit unterschiedlichen Medikamenten

Dr. Tim F. Wolff, Prof. Dr. Dr. Knut A. Grötz

1. UnitedNations: World Population Prospects: The 2017 Revision. 2017. https://www.un.org/development/desa/publications/world-population-prospects-the-2017-revision.html.
2. Jordan AR, Micheelis W: Fünfte Deutsche Mundgesundheitsstudie (DMS V). Institut der Deutschen Zahnärzte (IDZ), Köln, Deutscher Zahnärzte Verlag DÄV, 2016.
3. Branemark P, Zarb G, Albrektsson T: Tissue-integrated prostheses: Osseointegration in clinical dentistry. Quintessence Publishing Company 54 (4), 611–612 (1985).
4. Moßhammer D et al.: Polypharmazie – Tendenz steigend, Folgen schwer kalkulierbar. Polypharmacy – an upward trend with unpredictable effects. Dtsch Arztebl Int 113 (38), 627–633 (2016).
5. Laroche ML et al.: Inappropriate medications in the elderly. Clin Pharmacol Ther 85 (1), 94–97 (2009).
6. Chappuis V et al.: Medication-related dental implant failure: Systematic review and meta-analysis. Clin Oral Implants Res 29 (Suppl 16), 55–68 (2018).
7. Luo JD et al.: The effect of non-steroidal anti-inflammatory drugs on the osteogenic activity in osseointegration: a systematic review. Int J Implant Dent 4 (1), 30 (2018).
8. Robert Koch-Institut: Epidemiologisches Bulletin, aktuelle Daten und Informationen zu Infektionskrankheiten und Public Health. 2/2015. https://www.rki.de/DE/Content/Infekt/EpidBull/Archiv/2015/Ausgaben/05_15.pdf;jsessionid=26F7BFA92A8B5DE3419FAF7F266086EB.2_cid363?__blob=publicationFile.
9. Groetz KA, Schiegnitz E, Wolff TF. Handbuch MKG 2018: MKG-Update 2017. Kompromittierte Patienten. ISBN 978-3-86302-545-8. (2018).
10. Perez-Castrillon JL et al.: Effect of the antihypertensive treatment on the bone mineral density and osteoporotic fracture. Curr Hypertens Rev 1, 61–66 (2005).
11. Pierroz DD et al.: Deletion of beta-adrenergic receptor 1, 2, or both leads to different bone phenotypes and response to mechanical stimulation. J Bone Miner Res 27 (6), 1252–1262 (2012).
12. Schlienger RG et al.: Use of beta-blockers and risk of fractures. JAMA 292 (11), 1326–1332 (2004).
13. Takeda S et al.: Leptin regulates bone formation via the sympathetic nervous system. Cell 111 (3), 305–317 (2002).
14. Brater DC: Diuretic therapy. N Engl J Med 339 (6), 387–395 (1998).
15. Perez-Castrillon JL et al.: Effect of quinapril, quinapril-hydrochlorothiazide, and enalapril on the bone mass of hypertensive subjects: relationship with angiotensin converting enzyme polymorphisms. Am J Hypertens 16 (6), 453–459 (2003).
16. Wu X et al.: Antihypertensive medications and the survival rate of osseointegrated dental implants: a cohort study. Clin Implant Dent Relat Res 18 (6), 1171–1182 (2016).
17. De Bruyne P et al.: Changes in prescription patterns of acid-suppressant medications by Belgian pediatricians: analysis of the national database, [1997–2009]. J Pediatr Gastroenterol Nutr 58 (2), 220–225 (2014).

18. Mazer-Amirshahi M et al.: Rising rates of proton pump inhibitor prescribing in US emergency departments. Am J Emerg Med 32 (6), 618–622 (2014).
19. Targownik LE et al.: Use of proton pump inhibitors and risk of osteoporosis-related fractures. CMAJ 179 (4), 319–326 (2008).
20. O'Connell MB et al.: Effects of proton pump inhibitors on calcium carbonate absorption in women: a randomized crossover trial. Am J Med 118 (7), 778–781 (2005).
21. Ye X et al.: Proton pump inhibitors therapy and risk of hip fracture: a systematic review and meta-analysis. Eur J Gastroenterol Hepatol 23 (9), 794–800 (2011).
22. Grimelius L et al.: The parathyroid glands in experimentally induced hypergastrinemia in the rat. Scand J Gastroenterol 12 (6), 739–744 (1977).
23. Wu X et al.: Proton pump inhibitors and the risk of osseointegrated dental implant failure: a cohort study. Clin Implant Dent Relat Res 19 (2), 222–232 (2017).
24. Chrcanovic BR et al.: Intake of proton pump inhibitors is associated with an increased risk of dental implant failure. Int J Oral Maxillofac Implants 32 (5), 1097–1102 (2017).
25. Haney EM et al.: Association of low bone mineral density with selective serotonin reuptake inhibitor use by older men. Arch Intern Med 167 (12), 1246–1251 (2007).
26. Carr AB et al.: Relationship between selective serotonin reuptake inhibitors and risk of dental implant failure. J Prosthodont (2019).
27. Chrcanovic BR et al.: Is the intake of selective serotonin reuptake inhibitors associated with an increased risk of dental implant failure? Int J Oral Maxillofac Surg (2017).

Kommentar [AK1]: Bitte Bandangabe und Seitenzahlen ergänzen

Kommentar [AK2]: Bitte Bandangabe und Seitenzahlen ergänzen