

## Literatur

### Periimplantitis – erfolgreich behandelbar?

OA Dr. Jan Müller, Prof. Dr. Dr. Andrej M. Kielbassa/Berlin

### Implantologie Journal 8/2011

1. Berglundh T, Claffey N, De Bruyn H, Heitz- Mayfield N, Karoussis I, Könönen E, Lindhe J, Meyle J, Mombelli A, Renvert S, van Winkelhoff A, Winkel E, Zitzmann N: Peri-implant diseases. Consensus Report of the Sixth European Workshop on Periodontology 2008. *J Clin Periodontol* 2008;35: 282-285
2. Berglundh T, Persson L, Klinge B: A systematic review of the incidence of biological and technical complications in implant dentistry reported in prospective longitudinal studies of at least 5 years. *J Clin Periodontol* 2002;29: 197-212, 232-233
3. López-Cerero L: Dental implant-related infections. *Enferm Infect Microbiol Clin* 2008;26: 589-592
4. Mombelli A, Van Oosten MA, Schurch E, JR., Lang NP: The microbiota associated with successful or failing osseointegrated titanium implants. *Oral Microbiol Immunol* 1987;2: 145-151
5. Mombelli A, Lang NP: The diagnosis and treatment of periimplantitis. *Periodontol* 2000 1998;17: 63-76
6. Romanos GE: Treatment of periimplant lesions using different laser systems. *J Oral Laser Applications* 2002;2: 75-81
7. Quirynen M, Bollen CM, Papaioannou W, Van Eldere J, Van Steenberghe D: The influence of titanium abutment surface roughness on plaque accumulation and gingivitis: short-term observations. *Int J Oral Maxillofac Implants* 1996;11: 169-178
8. Schwarz F, Bieling K, Sculean A, Herten M, Becker J: Laser und Ultraschall in der Therapie perimplantärer Infektionen – eine Literaturübersicht. *Schweiz Monatsschr Zahnmed* 2004;114: 1228-1235
9. Nicoll BK, Peters RJ: Heat generation during ultrasonic instrumentation of dentin as affected by different irrigation methods. *J Periodontol* 1998;69: 884-888
10. Holbrook WP, Muir KF, Macphee IT, Ross PW: Bacteriological investigation of the aerosol from ultrasonic scalers. *Br Dent J* 1978;144: 245-247
11. Sculean A, Schwarz F, Berakdar M, Romanos GE, Brecx M, Willershausen B, Becker J: Non-surgical periodontal treatment with a new ultrasonic device (Vector-ultrasonic system) or hand instruments. *J Clin Periodontol* 2004;31: 428-433
12. Folwaczny M, Mehl A, Aggstaller H, Hickel R: Antimicrobial effects of 2.94 microm Er:YAG laser radiation on root surfaces: an in vitro study. *J Clin Periodontol* 2002;29: 73-78
13. Kreisler M, Kohnen W, Marinello C, Götz H, Duschner H, Jansen B, D'Hoedt B: Bactericidal effect of the Er:YAG laser on dental implant surfaces: an in vitro study. *J Periodontol* 2002;73: 1292-1298

14. Kreisler M, Götz H, Duschner H: Effect of Nd:YAG, Ho:YAG, Er:YAG, CO<sub>2</sub>, and GaAlAs laser irradiation on surface properties of endosseous dental implants. *Int J Oral Maxillofac Implants* 2002;17: 202-211
15. Rechmann P, Sadegh HM, Goldin DS, Hennig TH: Zur Oberflächenmorphologie von Implantaten nach Laserbestrahlung. *Dtsch Zahnärztl Z* 2000;55: 371-376
16. Romanos GE, Everts H, Nentwig GH: Effects of diode and Nd:YAG laser irradiation on titanium discs: a scanning electron microscope examination. *J Periodontol* 2000;71: 810-815
17. Eberhard J, Ehlers H, Falk W, Acil Y, Albers HK, Jepsen S: Efficacy of subgingival calculus removal with Er:YAG laser compared to mechanical debridement: an in situ study. *J Clin Periodontol* 2003;30: 511-518
18. Schwarz F, Aoki A, Sculean A, Georg T, Scherbaum W, Becker J: In vivo effects of an Er:YAG laser, an ultrasonic system and scaling and root planing on the biocompatibility of periodontally diseased root surfaces in cultures of human PDL fibroblasts. *Lasers Surg Med* 2003;33: 140-147
19. Schwarz F, Sculean A, Berakdar M, Szathmari L, Georg T, Becker J: In vivo and in vitro effects of an Er:YAG laser, a GaAlAs diode laser, and scaling and root planing on periodontally diseased root surfaces: a comparative histologic study. *Lasers Surg Med* 2003;32: 359-366
20. Schwarz F, Sculean A, Berakdar M, Georg T, Reich E, Becker J: Periodontal treatment with an Er:YAG laser or scaling and root planing. A 2-year-follow up-split mouth study. *J Periodontol* 2003;74: 590-596
21. Schwarz F, Sculean A, Rothamel D, Schwenzer K, Georg T, Becker J: Clinical evaluation of an Er:YAG laser for nonsurgical treatment of peri-implantitis. A pilot study. *Clin Oral Implants Res* 2005;1: 44-52
22. Karring ES, Karring T: Treatment of peri-implantitis by the Vector®-system – a clinical study. *Clinical Oral Implants Research* 2005;3: 288-293
23. Chul-Woong M, Su-Gwan K: Treatment of Peri-implantitis with a CO<sub>2</sub> Laser and Guided Bone Regeneration. *Hosp Dent Oral-Maxillofac Surg* 2006;2: 83-87
24. Romanos G, Ko HH, Froum S, Tarnow D: The Use of CO<sub>2</sub> Laser in the treatment of Periimplantitis. *Photomedicine and Laser Surgery* 2009;27: 381-386
25. Dobson J, Wilson M: Sensitization of oral bacteria in biofilms to killing by light from a low-power laser. *Arch Oral Biol* 1992;37: 883-887
26. Usacheva MN, Teichert MC, Biel MA: Comparison of the methylene blue and toluidine blue photobactericidal efficacy against gram-positive and gram-negative microorganisms. *Lasers Surg Med* 2001;29: 165-173
27. Wainwright M, Phoenix DA, Marland J, Wareing DR, Bolton FJ: A study of photobactericidal activity in the phenothiazinium series. *FEMS Immunol Med Microbiol* 1997;19: 75-80
28. Gosau M, Hahnel S, Schwarz F, Gerlach T, Reichert TE, Bürgers R: Effect of six different peri-implantitis disinfection methods on in vivo human oral biofilm. *Clin Oral Implants Res* 2010;21: 866-872

29. Giannelli M, Chellini F, Margheri M, Tonelli P, Tani A: Effect of chlorhexidine digluconate on different cell types: a molecular and ultrastructural investigation. *Toxicol In Vitro* 2008;2:308-317
30. Augthun M, Tinschert J, Huber A: In vitro studies on the effect of cleaning methods on different implant surfaces. *J Periodontol* 1998;69: 857-864
31. Fox SC, Moriarty JD, Kusy RP: The effects of scaling a titanium implant surface with metal and plastic instruments: an in vitro study. *J Periodontol* 1990;61: 485-490
32. Van de Velde E, Thielens P, Schautteet H, Vanclooster R: Subcutaneous emphysema of the oral floor during cleaning of a bridge fixed on an IMZ implant. Case report. *Rev Belge Med Dent* 1991;46: 64-71
33. Petersilka GJ, Steinmann D, Haberlein I, Heinecke A, Flemming TF: Subgingival plaque removal in buccal and lingual sites using a novel low abrasive air-polishing powder. *J Clin Periodontol* 2003;30: 328-333
34. Petersilka GJ, Tunkel J, Barakos K, Heinecke A, Haberlein I, Flemming TF: Subgingival plaque removal at interdental sites using a low-abrasive air-polishing powder. *J Periodontol* 2003;74: 307-311
35. Flemming TF, Hetzel M, Topoll H, Gerss J, Haberlein I, Petersilka GJ: Subgingival debridement efficacy of glycine powder air-polishing. *J Periodontol* 2007;78: 1002-1010
36. Petersilka GJ, Faggion CM, Stratmann U, Gerss J, Ehmke B, Haeberlein I, Flemming TF: Effect of glycine powder air-polishing on the gingiva. *J Clin Periodontol* 2008;35: 324-332
37. Moëne R, Décailliet F, Andersen E, Mombelli A: Subgingival plaque removal using a new air-polishing device. *J Periodontol* 2010;81: 79-88
38. Furuichi Y, Lindhe J, Ramberg P, Volpe AR: Patterns of de novo plaque formation in the human dentition. *J Clin Periodontol* 1992;19: 423-433
39. Goodson JM, Offenbacher S, Farr D, Hogan P: Periodontal disease treatment by local drug delivery. *J Periodontol* 1985;56: 265-272
40. Liao J, Anchun M, Zhu Z, Quan Y: Antibacterial titanium plate deposited by silver nanoparticles exhibits cell compatibility. *Int J Nanomedicine* 2010;5: 337-342
41. Liao J, Zhu Z, Anchun M, Li L, Zhang J: Deposition of silver nanoparticles on titanium surface for antibacterial effect. *Int J Nanomedicine* 2010;5: 261-267
42. Cao H, Liu X, Meng F, Chu PK: Biological actions of silver nanoparticles embedded in titanium controlled by micro-galvanic effects. *Biomaterials*. 2011;32: 693-705.