

## **Die Dekontamination von Implantaten mittels Pulverstrahlen in der Periimplantitistherapie**

Dr. Gordon John

### Literatur

1. Bergendal T, Forsgren L, Kvint S, Lowstedt E. The effect of an air-abrasive instrument on soft and hard tissues around osseointegrated implants. A case report. *Swed Dent J* 1990; 14: 219-223
2. Drago L, Bortolin M, Taschieri S, De Vecchi E, Agrappi S, Del Fabbro M, Francetti L, Mattina R. Erythritol/chlorhexidine combination reduces microbial biofilm and prevents its formation on titanium surfaces in vitro. *J Oral Pathol Med.* 2016 Dec 9. doi: 10.1111/jop.12536. [Epub ahead of print]
3. Duarte PM, Reis AF, de Freitas PM, Ota-Tsuzuki C. Bacterial adhesion on smooth and rough titanium surfaces after treatment with different instruments. *J Periodontol* 2009; 80: 1824-1832
4. Fürst MM, Salvi GE, Lang NP, Persson GR. Bacterial colonization immediately after installation on oral titanium implants. *Clin Oral Implants Res* 2007; 4: 501-508
5. Hallmon WW, Waldrop TC, Meffert RM, Wade BW. A comparative study of the effects of metallic, nonmetallic and sonic instrumentation on titanium abutment surfaces. *The international Journal of Oral & Maxillofacial Implants* 1996; 11: 96-100
6. John G, Becker J, Schwarz F. Taurolidine as an effective and biocompatible additive for plaque-removing techniques on implant surfaces. *Clin Oral Investig* 2014; 19(5): 1069-1077
7. John G, Becker J, Schwarz F. Effectivity of air-abrasive powder based on glycine and tricalcium phosphate in removal of initial biofilm on titanium and zirconium oxide surfaces in an ex vivo model. *Clin Oral Investig.* 2016; 20(4): 711-9
8. John G, Becker J, Schwarz F. Rotating titanium brush for plaque removal from rough titanium surfaces – an in vitro study. *Clin Oral Implants Res* 2014; 25(7): 838-842
9. John G, Sahm N, Becker J, Schwarz F. Nonsurgical treatment of peri-implantitis using an air-abrasive device or mechanical debridement and local application of chlorhexidine. Twelve-month follow-up of a prospective, randomized, controlled clinical study. *Clin Oral Investig.* 2015; 19(8): 1807-14.
10. Klinge B, Gustafsson A, Berglundh T. A systematic review of the effect of anti-disinfective therapy in the treatment of peri-implantitis. *J Clin Periodontol* 2002; 29(3): 213-225

11. Lindhe J, Meyle J et al. Peri-implant diseases: Consensus report of the sixth European Workshop on Periodontology. *J Clin Periodontol* 2008; 35(8): 282-285
12. Matthes R, Duske K, Kebede T, Pink C, Schlüter R, von Woedtke T, Weltmann KD, Kocher T, Jablonowski L. Osteoblast growth after cleaning of biofilm covered titanium discs with air-polishing and cold plasma. *J Clin Periodontol*. 2017 Mar 16. doi: 10.1111/jcpe.12720. [Epub ahead of print]
13. Persson GR, Roos-Jansåker AM, Lindahl C, Renvert S. Microbiologic results after non-surgical erbium-doped:yttrium, aluminum, and garnet laser or air-abrasive treatment of peri-implantitis: a randomized clinical trial. *J Periodontol*. 2011; 82(9): 1267-78
14. Pontoriero R, Tonelli MP, Carnevale G, Mombelli A, Nyman SR, Lang NP. Experimentally induced peri-implant mucositis. A clinical study in humans. *Clin Oral Implants Res* 1994; 5: 254-259
15. Quirynen M, Vogels R, Peeters W, van Steenberghe D, Naert I, Haffajee A. Dynamics of initial subgingival colonization of pristine periimplant pockets. *Clin Oral Implants Res* 2006; 17: 25-37
16. Renvert S, Polyzois I. Risk indicators for peri-implant mucositis: A systematic literature review. *J Clin Periodontol* 2015; 42(16): 172-86.
17. Renvert S, Roos-Jansaker AM, Claffey N. Non-surgical treatment of peri-implant mucositis and peri-implantitis: a literature review. *J Clin Periodontol* 2008; 35(8): 305-315
18. Ronay V, Merlini A, Attin T, Schmidlin PR, Sahrman P. In vitro cleaning potential of three implant debridement methods. Simulation of the non-surgical approach. *Clin Oral Implants Res*. 2017; 28(2):151-155.
19. Sahn 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*. 2011; 38(9): 872-8
20. Sahrman P, Ronay V, Hofer D, Attin T, Jung RE, Schmidlin PR. In vitro cleaning potential of three different implant debridement methods. *Clin Oral Implants Res*. 2015; 26(3): 314-9
21. Sahrman P, Ronay V, Sener B, Jung RE, Attin T, Schmidlin PR. Cleaning potential of glycine air-flow application in an in vitro peri-implantitis model. *Clin Oral Implants Res* 2013; 24(6): 666-70
22. Schwarz F, Becker J. AWMF-Leitlinie „Die Behandlung periimplantärer Infektionen an Zahnimplantaten“, AWMF-Registernummer: 083-023
23. Schwarz F, Rothamel D, Sculean A, Georg T, Scherbaum W, Becker J. Effects of an Er:YAG laser and Vector ultra sonic system on the biocompatibility of titanium implants in cultures of human osteoblast-like cells. *Clin Oral Implants Res* 2003; 14: 784-792
24. Schwarz F, Sculean A, Romanos G, Herten M, Horn N, Scherbaum W, Becker J. Influence of different treatment approaches on the removal of early plaque biofilms and the viability of SAOS2 osteoblasts grown on titanium Implants. *Clin Oral Investig* 2005; 9: 111-117
25. Schwarz F1, Ferrari D, Popovski K, Hartig B, Becker J. Influence of different air-abrasive powders on cell viability at biologically contaminated titanium

- dental implants surfaces. *J Biomed Mater Res B Appl Biomater.* 2009;88(1): 83-91
26. Tonetti MS, Schmid J. Pathogenesis of implant failures. *Periodontol* 2000 1994; 4: 127-138
27. 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* (1984) 1991; 46: 64–71
28. Van Winkelhoff AJ, Goené RJ, Benshop C, Folmer T. Early colonization of dental implants by putative periodontal pathogens in partially edentulous patients. *Clin Oral Implants Res* 2000; 11: 511-520
29. Schwarz F, Nuesry E, Bieling K, Herten M, Becker J. Influence of an erbium, chromium-doped yttrium, scandium, gallium, and garnet (Er,Cr:YSGG) laser on the reestablishment of the biocompatibility of contaminated titanium implant surfaces. *J Periodontol.* 2006; 77(11): 1820-7