

Ausgabe: ZWP Zahnarzt Wirtschaft Praxis 1+2/15

Thema: Legionella pneumophila – Lebensform, Virulenz und Vorkommen in Wasserleitungen zahnärztlicher Behandlungseinheiten

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Literatur:

1. Percival S. L. und Williams D.W. *Legionella*. In: *Microbiology of Waterborne Diseases* Aufl. 2014 Elsevier Ltd, S. 155-175.
2. Rodgers F.G., Macrae A.D., und Lewis M.J. Electron microscopy of the organism of Legionnaires' disease. *Nature* (London) 272 S. 825-826.
3. Rowbotham T.J. Preliminary report on the pathogenicity of *Legionella pneumophila* for freshwater and soil amoeba. *J. Clin. Pathol.* 1980 33 S. 1179-1183.
4. Chandler F.W., Roth I.L., Callaway C.S., Bump J.L., Thomason B.M., und Weaver R.E. Flagella on Legionnaires' disease bacteria: ultrastructural observations. *Ann. Intern. Med.* 93 S. 711-714.
5. Newton H.J., Ang D. K. Y., van Driel I. R., und Hartland E. L. Molecular pathogenesis of infections caused by *Legionella pneumophila*. *Clin. Microbiol. Rev.* 2010 23 Nr. 2 S. 274-298.
6. Walter C.W. *Legionella pneumophila* in a hospital water supply. *N Engl J Med* 1982 307 S. 379-380.
7. Khweek A.A., Dávila N.S.F., Caution K., Akhter A., Abdulrahman B.A., Tazi M., Hassan H., Novotny L.A., Bakalatz L.O., und Amer A.O. Biofilm-derived *Legionella pneumophila* evades the innate immune response in macrophages. *Frontiers in Cellular and Infection Microbiology* 2013 3 S. 1-8.
8. Abdel-Nour M, Duncan C, Low D. E., und Guyard C. Biofilms: The Stronghold of *Legionella pneumophila*. Review *Int. J. Mol. Sci.* 2013 14 S. 21660-21675.
9. Tran Minh N.N., Ilef D., Jarraud S., Rouil L., Campese C., Che D., Haeghebaert S., Ganiayre F., Marcel F., Etienne J., und Desenclos J.-C. A community-wide outbreak of Legionnaire's disease linked to industrial cooling towers – how far can contaminated aerosols spread? *JID* 2006 193 S. 102-111.
10. Delaedt Y., Daneels A., Declerck P., Behets J., Ryckeboer J., Peters E., und Ollevier F. The impact of electrochemical disinfection on *Escherichia coli* and *Legionella pneumophila* in tap water. *Microbiological Research* 2008 163 S. 192-199.
11. Szymańska J. und Sitkowska J. Bacterial hazards in a dental office: An update review. Review *African Journal of Microbiology Research* 2012 6(8) S. 1642-1650.
12. Ma'ayeh S.Y., Al-Hiyasat A.S., Hindiyeh M.Y., und Khader Y.S. *Legionella pneumophila* contamination of dental unit water line system in a dental teaching centre. *Int J Dent Hygiene* 2008 6 S. 48-55.
13. Montagna M.T., Tato D., Napoli C. et al. Gruppo di Lavoro SitI L'Igiene in Odontoiatria. Pilot study on the presence of *Legionella* spp. in 6 Italian cities' dental units. *Ann Ig* 2006 18 S. 297-303.
14. Paszko-Kolva C., Shahamat M., Keiser J., und Colwell R.R. Prevalence of antibodies against *Legionella* species in healthy and patient populations. In: Barbaree J.M., Breiman R.F., und Dufour A.P. eds. *Legionella: current status and emerging perspectives*. Washington, DC, American Society for Microbiology 1993 S. 24-26.
15. Reinhaler F., Mascher F., und Stünzner D. Serological examinations for antibodies against *Legionella* species in dental personnel. *J Dent Res* 1988 67 S. 942-943.

16. Burton W.E. und Miller R.L. The role of aerobiology in dentistry. In: The office of Naval Research, ed. *First International Symposium on Aerobiology*. Berkeley, Naval Biology Laboratory, Naval Supply Center University of California, 1963, S. 87-94.
17. Cuthbertson W.C. Causes of death among dentists: a comparison with the general male population. *J Calif State Dent Assoc New State Dent Soc* 1954 30 S. 159-160.
18. Scheid R.C., Kim C.K., Bright J.S., Whiteley M.S., und Rosen S. Reduction of microbes in handpieces by flushing before use. *J Am Dent Assoc* 1982 105 S. 658-660.
19. Szymanska J. Risk of exposure to Legionella in dental practice. *Ann Agric Environ Med* 2004 11 S. 9-12
20. Atlas R M, Williams F W und Huntington M K. Legionella contamination of dental—unit waters. *Applied and Environmental Microbiology* 1996 61 Nr. 4 S. 1208-1213.
21. Pankhurst CL und Coulter WA. Do contaminated dental unit waterlines pose a risk of infection? *J. Dent.* 2007 35(9) S. 712-720.
22. Ricci M L, Fontana S, Pinci F, Fiumana E, Pedna M F, Farolfi P, Sabattini M A B, und Scaturro M. Pneumonia associated with dental unit waterline. *Lancet* 2012 379 S. 684.
23. Peter Lundholm. Medicinsk riskbedömning. Folktandvården SFVH Hygiendagarna i Umeå 2014.
24. Edelstein P.H. Urine antigen tests positive for Pontiac Fever: Implications for diagnosis and pathogenesis. Editorial commentary *Clinical Infectious Diseases* 2007 44 S. 229-231.
25. Singh T. und Coogan M.M. Isolation of pathogenic *Legionella* species and Legionella-laden amoebae in dental unit waterlines. *Journal of Hospital Infection* 2005 61 S. 257-262.
26. Barbeau J. und Buhler T. Biofilms augment the number of free-living amoebae in dental unit waterlines. *Res. Microbiol.* 2001 152 S. 753-760.
27. Bigot R., Bertiaux J., Frere J., und Berjeaud J-M. Intra-amoeba multiplication induces chemotaxis and biofilm colonization and formation of Legionella. *PLOS ONE* 2013 8 Ausg. 10 S. 1-10.
28. Devos L., Boon N. und Verstraete W. Legionella pneumophila in the environment: the occurrence of fastidious bacterium in oligotrophic conditions. *Reviews in Environmental Science and Bio/Technology* 2005 64 S. 61-74.
29. O'Donnell M.J. MacCarthy D., und Coleman D.C. Microbiology and cross-infection control. In: *Clinical Textbook of Dental Hygiene and Therapy* Hg. Ireland, R. S. 181-207. Oxford: Blackwell Munksgaard.
30. Coleman D.C., O'Donnell M.J., Shore A.C., und Russell R.J. Biofilm problems in dental unit water systems and its practical control. *Jounal of Applied Microbiology* 2009 106 S. 1424-1437.