



Präventivkonzept für die Praxis – Teil 2

Individuelle Speicheldiagnostik

Ein Beitrag von Dr. Lutz Laurisch

Literaturangabe

1. Axelsson P, Lindhe J, Nyström B. On the prevention of caries and periodontal disease. Results of a 15-year longitudinal study in adults. *J Clin Periodontol.* 1991 Mar;18(3):182-9. doi: 10.1111/j.1600-051x.1991.tb01131.x. PMID: 2061418.
2. Axelsson P, Lindhe J. Effect of controlled oral hygiene procedures on caries and periodontal disease in adults. Results after 6 years. *J Clin Periodontol.* 1981 Jun;8(3):239-48. doi: 10.1111/j.1600-051x.1981.tb02035.x. PMID: 6947990.
3. Loesche WJ. Role of *Streptococcus mutans* in human dental decay. *Microbiol Rev* 1986;50:353-38
4. Takahashi, N; Nyvad B. Integrated hypothesis of dental caries and periodontal diseases. *Journal of Oral Microbiology*, Vol. 12, 17 10953 <https://doi.org/10.1080/20002297.2019.1710953>
5. Tanner, A.C.R., Kressler C.A., Rothmiller S., Johansson S, Chalmers N.I. The Caries Microbiome: Implications for Reversing Dysbiosis *Advances in Dental Research*, 2018, Vol. 29(1) 78–85; DOI: 10.1177/0022034517736496
6. Filho JG, Vizoto NL, Luiza de Aguiar Loesch M, Dias de Sena M, Mendes da Camara D, Caiaffa KS, de Oliveira Mattos-Graner R, Duque C. Genetic and physiological effects of subinhibitory concentrations of oral antimicrobial agents on *Streptococcus mutans* biofilms. *Microb Pathog.* 2021 Jan;150:104669. doi: 10.1016/j.micpath.2020.104669. Epub 2020 Dec 2. PMID: 33278519
7. Conrads, G: Das orale Mikrobiom und seine kariogenen Spezies ZM110, Nr 23-24. 1.12.2020 (2294ff)
8. Chifor I, Rusu Dascalu L, Picos A, Chifor R, Badea I, Tisler C, Badea M. Chair-side saliva parameters assessment and caries experience evaluation. *Med Pharm Rep.* 2019 Dec;92(Suppl No 3):S33-S38. doi: 10.15386/mpr-1523. Epub 2019 Dec 15. PMID: 31989106; PMCID: PMC6978928.
9. Laurisch, L: Speicheldiagnostik und die erweiterte ökologische Plaquehypothese – eine Standortbestimmung. *Quintessenz Zahnmedizin*, Jahrgang 72; 2, 2021, 119-137
9. Conrads G, About I. Pathophysiology of Dental Caries. *Monogr Oral Sci.* 2018;27:1-10. doi: 10.1159/000487826. Epub 2018 May 24. PMID: 29794423.
10. Koo H, Xiao J, Klein MI. Extracellular polysaccharides matrix—an often forgotten virulence factor in oral biofilm research. *Int J Oral Sci* 2009; 1: 229-234
11. Tanner, A.C.R., Kressler C.A., Rothmiller S., Johansson S, Chalmers N.I. The Caries Microbiome: Implications for Reversing Dysbiosis *Advances in Dental Research*, 2018, Vol. 29(1) 78–85; DOI: 10.1177/0022034517736496
12. Sounah SA, Madfa AA. Correlation between dental caries experience and the level of *Streptococcus mutans* and lactobacilli in saliva and carious teeth in a Yemeni adult population. *BMC Res Notes.* 2020 Feb 27;13(1):112. doi: 10.1186/s13104-020-04960-3. PMID: 32103773; PMCID: PMC7045487
13. Lenčová E, Broukal Z, Spížek J. Point-of-care salivary microbial tests for detection of cariogenic species-clinical relevance thereof-review. *Folia Microbiol.* 2010; 55(6):559–568. [PubMed21253899
14. Subramaniam P, Suresh R. *Streptococcus Mutans* Strains in Mother-Child Pairs of Children with Early Childhood Caries. *J Clin Pediatr Dent.* 2019;43(4):252-256. doi: 10.17796/1053-4625-43.4.5. Epub 2019
15. Svensäter G, Larsson UB, Greif EC, Cvitkovitch DG, Hamilton IR. Säuretoleranz-Reaktion und Überleben durch orale Bakterien. *Orales Mikrobiol Immunol.* 1997 Okt;12(5):266-73. doi: 10.1111/j.1399-302x.1997.tb00390.x. PMID: 9467379.
16. Jay, P.:The reduction of oral lactobacillus acidophilus counts by the periodic restriction of carbohydrate. *Am J Orthod* 33, 162 (1947)
17. Ericsson, Y: Clinical investigation of the salivary buffering action. *Acta Odontol Scand* 17, 131 (1959)
18. Fenoll-Palomares C, Muñoz Montagud JV, Sanchiz V, Herreros B, Hernández V, Mínguez M, Benages A. Unstimulated salivary flow rate, pH and buffer capacity of saliva in healthy volunteers. *Rev Esp Enferm Dig.* 2004 Nov;96(11):773-83. English, Spanish. doi: 10.4321/s1130-01082004001100005. PMID: 15584851.
19. Frese C, Reissfelder LS, Kilian S, Felten A, Laurisch L, Schoilew K, Boutin S. Can the Acid-formation Potential of Saliva Detect a Caries-related Shift in the Oral Microbiome? *Oral Health Prev Dent.* 2022 Jan 20;20(1):51-60. doi: 10.3290/j.ohpd.b2573053. PMID: 35049252.
20. Griffen AL, Beall CJ, Campbell JH, Firestone ND, Kumar PS, Yang ZK, Podar M, Leys EJ. 2012. Distinct and complex bacterial profiles in human periodontitis and health revealed by 16S pyrosequencing. *ISME.* 6(6):1176-1185

21. Simón-Soro Á, Tomás I, Cabrera-Rubio R, Catalan MD, Nyvad B, Mira A. Microbial geography of the oral cavity. *J Dent Res.* 2013;92:616–21.
22. Köhler B, Bratthall D (1979). Practical method to facilitate estimation of *Streptococcus mutans* levels in saliva. *Journal of clinical Mikrobiology*, S. 548
23. Shi W, Tian J, Xu H, Zhou Q, Qin M. Distinctions and associations between the microbiota of saliva and supragingival plaque of permanent and deciduous teeth. *PloS one.* 2018;13(7):e0200337
24. Mundorff SA, Eisenberg AD, Leverett DH, Espeland MA, Proskin HM. Correlations between numbers of microflora in plaque and saliva. *Caries Res.* 1990;24(5):312–7. doi: 10.1159/000261289. PMID: 2261603.
25. Kneist S, Heinrich-Weltzien R, Tietze W, Fischer T, Stößer L. Zur Kariesvorsorgeuntersuchung mit mikrobiologischen Speicheltests - Sensitivität, Spezifität und Indikation. In: Stößer L, ed. *Kariesdynamik und Kariesrisiko.* Berlin: Quintessenz; 1998:230–238
26. Fragkou S, Balasouli C, Tsuzukibashi O, Argyropoulou A, Menexes G, Kotsanos N, Kalfas S. *Streptococcus mutans*, *Streptococcus sobrinus* and *Candida albicans* in oral samples from caries-free and caries-active children. *Eur Arch Paediatr Dent.* 2016 Oct;17(5):367–375. doi: 10.1007/s40368-016-0239-7. Epub 2016 Jun 29. PMID: 27357362
27. Lenčová E, Broukal Z, Spížek J. Point-of-care salivary microbial tests for detection of cariogenic species-clinical relevance thereof-review. *Folia Microbiol.* 2010; 55(6):559–568. [PubMed:21253899]
28. Krasse, B.: *Die Quintessenz des Kariesrisikos.* Quintessenz, Berlin 1986
29. Lehmann, R.R.: *Ökologie der Mundhöhle.* Thieme, Stuttgart 1991
30. König, K.: *Karies und Parodontopathien.* Thieme, Stuttgart 1987
31. König, K., Goepel, C.: *Die Bedeutung des Speichels für Mund- und Zahngesundheit.* Sonderdruck ZM, 82, 4 (1992)
32. Vitorino R, Calheiros-Lobo MJ, Duarte JA, Domingues P, Amado F. Salivary clinical data and dental caries susceptibility: is there a relationship? *Bull Group Int Rech Sci Stomatol Odontol.* 2006 Mar;47(1):27–33. PMID: 17672202.
33. Lenander-Lumikari M, Loimaranta V. Saliva and dental caries. *Adv Dent Res.* 2000 Dec;14:40–7. doi: 10.1177/08959374000140010601. PMID: 11842922.
34. Fenoll-Palomares C, Muñoz Montagud JV, Sanchiz V, Herreros B, Hernández V, Mínguez M, Benages A. Unstimulated salivary flow rate, pH and buffer capacity of saliva in healthy volunteers. *Rev Esp Enferm Dig.* 2004 Nov;96(11):773–83. English, Spanish. doi: 10.4321/s1130-01082004001100005. PMID: 15584851.
35. Lussi A, von Salis-Marincek M.; Ganss C et al. Clinical study monitoring the pH on tooth surfaces in patients with and without erosion. *Caries Res* 2012;46(6):507–512.
36. Twetman S, Fontana M. Patient caries risk assessment. *Monogr Oral Sci* 2009;21:91–101.
37. Ericsson, Y.: Clinical investigation of the salivary buffering action. *Acta Odontol Scand* 17, 131 (1959)
38. Laurisch, L: Speicheldiagnostik und die erweiterte ökologische Plaquehypothese – eine Standortbestimmung. *Quintessenz Zahnmedizin, Jahrgang.72; 2, 2021, 119-137*
39. Kaur A, Kwatra KS, Kamboj P. Evaluation of non-microbial salivary caries activity parameters and salivary biochemical indicators in predicting dental caries. *J Indian Soc Pedod Prev Dent.* 2012 Jul-Sep;30(3):212–7. doi: 10.4103/0970-4388.105013. PMID: 23263424.
40. Filho JG, Vizoto NL, Luiza de Aguiar Loesch M, Dias de Sena M, Mendes da Camara D, Caiaffa KS, de Oliveira Mattos-Graner R, Duque C. Genetic and physiological effects of subinhibitory concentrations of oral antimicrobial agents on *Streptococcus mutans* biofilms. *Microb Pathog.* 2021 Jan;150:104669. doi: 10.1016/j.micpath.2020.104669. Epub 2020 Dec 2. PMID: 33278519.
41. Laurisch, L: Kariesrisikodiagnostik: Basis der Individualprophylaxe, *Der Freie Zahnarzt* 07-08/2021 S.72-81 Springer-Medizin Verlag GmbH 2021
42. Köhler, B., Bratthall, D.: Intrafamilial levels of *Streptococcus mutans* and some aspects of the bacterial transmission. *Scand J Dent Res* 86, 35 (1978)
43. Subramaniam P, Suresh R. *Streptococcus Mutans* Strains in Mother-Child Pairs of Children with Early Childhood Caries. *J Clin Pediatr Dent.* 2019;43(4):252–256. doi: 10.17796/1053-4625-43.4.5. Epub 2019
44. Kishi M, Abe A, Kishi K, Ohara-Nemoto Y, Kimura S, Yonemitsu M. Relationship of quantitative salivary levels of *Streptococcus mutans* and *S. sobrinus* in mothers to caries status and colonization of mutans streptococci in plaque in their 2.5-year-old children. *Community Dent Oral Epidemiol.* 2009 Jun;37(3):241–9. doi: 10.1111/j.1600-0528.2009.00472.x. PMID: 19508271
45. Berkowitz RJ, Turner J, Green P: Maternal salivary levels of *Streptococcus mutans* and primary oral infection of infants. *Arch Oral Biol* 26 (1981) 147–149.
46. Tenovuo J, Lehtonen OP, Aaltonen AS: Caries development in children in relation to the presence of mutans streptococci in dental plaque and of serum antibodies against whole cells and protein antigen I/II of *Streptococcus mutans*. *Caries Res* 1990; 24:59–64
47. Tenovuo J, Lehtonen OP, Aaltonen AS. Caries development in children in relation to the presence of mutans streptococci in dental plaque and of serum antibodies against whole cells and protein antigen I/II of *Streptococcus mutans*. *Caries Res.* 1990;24(1):59–64. doi: 10.1159/000261240. PMID: 2293894.
48. Ellrott, T. Wie Kinder essen lernen. *Ernährung* 1, 167–173 (2007). <https://doi.org/10.1007/s12082-007-0041-3>
49. Galef, B. G., & Henderson, P. W. (1972). Mother's milk: A determinant of the feeding preferences of weaning rat pups. *Journal of Comparative and Physiological Psychology*, 78(2), 213–219. <https://doi.org/10.1037/h0032186>
50. Yousefi M, Parvaie P, Riahi SM. Salivary factors related to caries in pregnancy: A systematic review and meta-analysis. *J Am Dent Assoc.* 2020 Aug;151(8):576–588.e4. doi: 10.1016/j.aime.2020.04.021. PMID: 32718487.
51. Laine MA. Effect of pregnancy on periodontal and dental health. *Acta Odontol Scand.* 2002 Oct;60(5):257–64. doi: 10.1080/00016350260248210. PMID: 12418714.
52. Yousefi M, Parvaie P, Riahi SM. Salivary factors related to caries in pregnancy: A systematic review and meta-analysis. *J Am Dent Assoc.* 2020 Aug;151(8):576–588.e4. doi: 10.1016/j.aime.2020.04.021. PMID: 32718487.

53. Laine M, Pienihäkkinen K. Salivary buffer effect in relation to late pregnancy and postpartum. *Acta Odontol Scand*. 2000 Feb;58(1):8-10. doi: 10.1080/000163500429361. PMID: 10809393.
54. Laine M, Tenovuoto J, Lehtonen OP, Ojanotko-Harri A, Vilja P, Tuohimaa P. Pregnancy-related changes in human whole saliva. *Arch Oral Biol*. 1988;33(12):913-7. doi: 10.1016/0003-9969(88)90022-2. PMID: 3256298.
55. Laine M, Tenovuoto J, Lehtonen OP, Ojanotko-Harri A, Vilja P, Tuohimaa P. Pregnancy-related changes in human whole saliva. *Arch Oral Biol*. 1988;33(12):913-7. doi: 10.1016/0003-9969(88)90022-2. PMID: 3256298.
56. Latifi-Xhemajli B, Véronneau J, Begzati A, Bytyci A, Kutillovi T, Rexhepi A. Association between salivary level of infection with *Streptococcus mutans*/Lactobacilli and caries-risk factors in mothers. *Eur J Paediatr Dent*. 2016 Mar;17(1):70-4. PMID: 26949244.
57. Sharma P, Goswami M, Singh D, Massod SS, Nganba K. Correlation of *Streptococcus mutans* count in Mother-child Pair of Working and Nonworking Mothers: A Cross-sectional Study. *Int J Clin Pediatr Dent*. 2016 Oct-Dec;9(4):342-348. doi: 10.5005/jip-journals-10005-1389. Epub 2016 Dec 5. PMID: 28127167; PMCID: PMC5233702.
58. Filho JG, Vizoto NL, Luiza de Aguiar Loesch M, Dias de Sena M, Mendes da Camara D, Caiassa KS, de Oliveira Mattos-Graner R, Duque C. Genetic and physiological effects of subinhibitory concentrations of oral antimicrobial agents on *Streptococcus mutans* biofilms. *Microb Pathog*. 2021 Jan;150:104669. doi: 10.1016/j.micpath.2020.104669. Epub 2020 Dec 2. PMID: 33278519.
59. K.A. Plonka, M.L. Pukallus, A.G. Barnett, L.J. Walsh; T.H. Holcombe, W.K. Seow: Mutans Streptococci and Lactobacilli Colonization in Preterm Children from the Neonatal Period to Seven Months of Age. *Caries Res* 2012;46:213-220
60. Thenisch N.L.; Bachmann L.M.; Imfeld T.; Leisebach Minder T.; Steuer J: Are Mutans Streptococci Detected in Preschool Children a Reliable Predictive Factor for Dental Caries Risk? A systematic Review. *Caries Res* 2006;40:366-374
61. Tenovuoto J, Lehtonen OP, Aaltonen AS: Caries development in children in relation to the presence of mutans streptococci in dental plaque and of serum antibodies against whole cells and protein antigen I/II of *Streptococcus mutans*. *Caries Res* 1990; 24:59-64
62. K.A. Plonka, M.L. Pukallus, A.G. Barnett, L.J. Walsh; T.H. Holcombe, W.K. Seow: A Longitudinal Case-Control Study of Caries Development from Birth to 36 months. *Caries Res* 2013;47:117-127
63. Köhler, B; Andréen I: Mutans Streptococci and Caries Prevalence in Children after Early Maternal Caries Prevention: A Follow-up at Eleven and Fifteen Years of Age. *Caries Res* 2010;44:452-458.
64. Laurisch, L.: Frühkindliche Prophylaxe erfolgreich durchführen – Behandlungskonzepte für die ersten Lebensjahre *DFZ* 2010, 54: 70-78.
65. Divaris K: Predicting Dental Caries Outcomes in Children: A "Risky" Concept; *Journal of Dental Research*; 2016, Vol. 95(3) 248-254
66. Parisotto TM, Steiner-Oliveira C, et al. Early childhood caries and mutans streptococci: a systematic review. *Oral Health Prev Dent*. 2010;8(1):59-70
67. .Khoury ZH, Vila T, Puthran TR, Sultan AS, Montelongo-Jauregui D, Melo MAS, Jabra-Rizk MA. The Role of *Candida albicans* Secreted Polysaccharides in Augmenting *Streptococcus mutans* Adherence and Mixed Biofilm Formation: In vitro and in vivo Studies. *Front Microbiol*. 2020 Feb 28;11:307. doi: 10.3389/fmicb.2020.00307. PMID: 32256460; PMCID: PMC7093027.
68. Lozano Moraga CP, Rodriguez Martinez GA, Lefmiller Puente CA et al. Prävalenz von *Candida albicans* und Beförderung von *Candida non-albicans* im Speichel von Vorschulkindern, entsprechend ihrem Kariesstatus. *Acta Odontol Scand* 2017; 75 (1): 30-35
69. Sampaio A, Souza S, Ricomini-Filho A, Del bel Cury A, Cavalcanti Y, Cury J: *Candida albicans* increases dentine Demineralisation Provoked by *S.mutans* Biofilm. *Caries Res* 2019;53:322-331
70. Ben Khadra GM, Arrag EA, Alammori M, AlKadi MF. The effect of chlorhexidine-thymol and fluoride varnishes on the levels of *Streptococcus mutans* in saliva in children aged 6-8 years. *Indian J Dent Res*. 2019 Jan-Feb;30(1):67-72. doi: 10.4103/ijdr.IJDR_208_17. PMID: 30900660.
71. Syed M, Chopra R, Shrivastava V, Sachdev V. Comparative evaluation of 0.2% Chlorhexidine Mouthwash, Xylitol Chewing Gum, and Combination of 0.2% Chlorhexidine Mouthwash and Xylitol Chewing Gum on Salivary *Streptococcus mutans* and Biofilm Levels in 8- to 12-Year-Old Children. *Int J Clin Pediatr Dent*. 2016 Oct-Dec;9(4):313-319. doi: 10.5005/jip-journals-10005-1384. Epub 2016 Dec 5. PMID: 28127162; PMCID: PMC5233697.
72. Marya CM, Taneja P, Nagpal R, Marya V, Oberoi SS, Arora D. Efficacy of Chlorhexidine, Xylitol, and Chlorhexidine + Xylitol against Dental Plaque, Gingivitis, and Salivary *Streptococcus mutans* Load: A Randomised Controlled Trial. *Oral Health Prev Dent*. 2017;15(6):529-536. doi: 10.3290/j.ohpd.a39669. PMID: 29319062.
73. Lucchese A, Bondemark L, Marcolina M, Manuelli M: Changes in oral microbiota due to orthodontic appliances: A systematic review. *J. Oral Microbiol*. 2018; 10, 1476645
74. Lundström F, Krasse B.: *Streptococcus mutans* and Lactobacilli frequency in orthodontic patients; the effect of chlorhexidine treatments *Eur J Orthod*: 1987;9:109-116
75. Mummolo S, Tieri M, Nota A, Caruso S, Darvizeh A, Albani F, Gatto R, Marzo G, Marchetti E, Quinzi V, Tecco S. Salivary concentrations of *Streptococcus mutans* and Lactobacilli during an orthodontic treatment. An observational study comparing fixed and removable orthodontic appliances. *Clin Exp Dent Res*. 2020 Apr;6(2):181-187. doi: 10.1002/cre2.261. Epub 2019 Dec 3. PMID: 32250562; PMCID: PMC7133731.
76. Sifakakis I, Papaioannou W, Papadimitriou A, Kloukos D, Papageorgiou SN, Eliades T. Salivary levels of cariogenic bacterial species during orthodontic treatment with thermoplastic aligners or fixed appliances: a prospective cohort study. *Prog Orthod*. 2018 Aug 1;19(1):25. doi: 10.1186/s40510-018-0230-4. PMID: 30066184; PMCID: PMC6068060.
77. Pinto A.S., Alves L.S., Maltz M., Susin C., Zenkner J.E.A.: Does the Duration of Fixed Orthodontic Treatment Affect Caries Activity among Adolescents and Young Adults? *Caries Res* 2018;52:463-467

78. Pinto A.S., Alves L.S., Maltz M., Susin C., Zenkner J.E.A.: Does the Duration of Fixed Orthodontic Treatment Affect Caries Activity among Adolescents and Young Adults? *Caries Res* 2018;52:463-467
79. Laurisch, L: Prophylaxe in der Kieferorthopädie – Untersuchung subklinischer Parameter Bayerisches Zahnärzteblatt BZB, September 2019; 9-19
80. Mummolo S, Marchetti E, Giuca MR, Gallusi G, Tecco S, Gatto R, Marzo G.: In-office bacteria test for a microbial monitoring during the conventional and self-ligating orthodontic treatment. *Head Face Med.* 2013 Feb 19;7. doi: 10.1186/1746-160X-9-7.
81. Laurisch, L: Prophylaxe in der Kieferorthopädie – Untersuchung subklinischer Parameter Bayerisches Zahnärzteblatt BZB, September 2019; 9-19
82. Laurisch, L: Präventionsorientierte Konzepte in der Kinderzahnheilkunde – Kieferorthopädie als integraler Bestandteil präventiver Betreuungskonzepte. *Quintessenz Zahnmedizin*; Jahrgang 72(12)
83. Dias AP, Paschoal MAB, Diniz RS, Lage LM, Gonçalves LM. Antimicrobial action of chlorhexidine digluconate in self-ligating and conventional metal brackets infected with *Streptococcus mutans* biofilm. *Clin Cosmet Investig Dent.* 2018 Apr 19;10:69-74. doi: 10.2147/CCIDE.S148700. PMID: 29719422; PMCID: PMC5914551
84. Galan, D., Lynch, E.: Epidemiology of root caries. *Gerodontology* 1993;10(2):59-71
85. Laurisch, L. Diagnostik und Therapie der Wurzelkaries, *Quintessenz* 53. 337-350 (2002)
86. Schmidlin PR. Risiken und Nebenwirkungen der Parodontitis-Therapie. Restaurative Möglichkeiten zur Verbesserung ästhetischer Defizite im Fokus [Risks and side effects of periodontitis therapy. Focus on restorative possibilities for improving esthetic defects]. *Schweiz Monatsschr Zahnmed.* 2012;122(5):427-37. French, German. PMID: 22684997.
87. Quirynen M, Gizani S, Mongardini C, Declerck D, Vinkier F, Van Steenberghe D. The effect of periodontal therapy on the number of cariogenic bacteria in different intra-oral niches. *J Clin Periodontol.* 1999 May;26(5):322-7. doi: 10.1034/j.1600-051x.1999.260511.x. PMID: 10355625.
88. Van der Reijden WA, Delleijm-Kippuw N, Stijne-van Nes AM, de Soet JJ, van Winkelhoff AJ. Mutans streptococci in subgingival plaque of treated and untreated patients with periodontitis. *J Clin Periodontol.* 2001 Jul;28(7):686-91. doi: 10.1034/j.1600-051x.2001.028007686.x. PMID: 11422591.
89. Dani S, Prabhu A, Chaitra KR, Desai NC, Patil SR, Rajeev R. Assessment of *Streptococcus mutans* in healthy versus gingivitis and chronic periodontitis: A clinico-microbiological study. *Contemp Clin Dent.* 2016 Oct-Dec;7(4):529-534. doi: 10.4103/0976-237X.194114. PMID: 27994423; PMCID: PMC5141670
90. Dani S, Prabhu A, Chaitra KR, Desai NC, Patil SR, Rajeev R. Assessment of *Streptococcus mutans* in healthy versus gingivitis and chronic periodontitis: A clinico-microbiological study. *Contemp Clin Dent.* 2016 Oct-Dec;7(4):529-534. doi: 10.4103/0976-237X.194114. PMID: 27994423; PMCID: PMC5141670.
91. BAH_Zahlenbroschuere_2019_2020-05-28_WEB.indd (bah-bonn.de)
92. Laurisch, L.: Mundtrockenheit- Hintergründe und Therapie eines zunehmenden Problems. *Deutsche Zahnärztliche Zeitung, DZZ* 2012,67 (7); 430-437
93. Chifor I, Badea I, Chifor R, Popa D, Staniste L, Tarmure D, Avram R. Saliva characteristics, diet and carioreceptivity in dental students. *Clujul Med.* 2014;87(1):34-9. doi: 10.15386/cjm.2014.8872.871.ic1ib2. Epub 2014 Jan 30. PMID: 26527994; PMCID: PMC4462414
94. Chifor I, Rusu Dascalu L, Picos A, Chifor R, Badea I, Tisler C, Badea M. Chair-side saliva parameters assessment and caries experience evaluation. *Med Pharm Rep.* 2019 Dec;92(Suppl No 3):S33-S38. doi: 10.15386/mpr-1523. Epub 2019 Dec 15. PMID: 31989106; PMCID: PMC6978928
95. Liu, Y., Meng, Y., Wu, M., & Zhang, Q. (2021). A Two-Year Longitudinal Study of the Effectiveness of the CRT® Bacteria Test in Evaluating Caries Risk in Three-Year-Old Children. *Evidence-based complementary and alternative medicine : eCAM*, 2021, 7488855. <https://doi.org/10.1155/2021/7488855>
96. Laurisch, L: Kariesrisikodiagnostik: Basis der Individualprophylaxe, *Der Freie Zahnarzt* 07-08/2021 S.72-81 Springer-Medizin Verlag GmbH 2021
97. Zimmer, S. Eine Therapie ohne saubere Diagnose kann nicht zu einer Heilung führen *DZW* 15/2019, S.9