

Metabolic profile by H-NMR spectroscopy of saliva of periodontitis cases

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Abstract

Periodontitis is a chronic, inflammatory disease. It may be value for understanding the path physiology of the disease by metabolic profile of saliva samples using high resolution NMR spectroscopy. It has been employed in 114 saliva samples in search of distinctive difference and spectral data were further subjected to multi variate analysis and one hundreds metabolites were characterized and assigned in 11 NMR spectral of saliva. The statistical analysis of control and disease using PLS-DA model resulting in R2 of 0.84 and Q2 of 0.79. There was an elevation in the concentration of statistically discriminate metabolites. The twenty newly identified metabolites in saliva indicate bacterial population shift along with change in homeostasis. These disturbances the biofilm, a real protector against any possible biodamage on tooth surface. These newly identified metabolites could define better geographically diversified periodontal condition. Some of the newly identified metabolites along with the pool of metabolite may serve as biomarker for distinguishing the severity and complexity of periodontitis

Biography

Charanjit Singh Saimbi, MDS in Periodontology retired as dean from King Georges Medical University, presently working as Director Post Graduate Studies in Career Post Graduate Institute of Dental Sciences & Hospital, Lucknow, India

Publications

1. Zetu L, Wang HL. Management of inter-dental/inter-implant papilla. J Clin Periodontol 2005;32:831-9
2. Tarnow DP, Magner AW, Fletcher P. The effect of the distance from the contact point to the crest of bone on the presence or absence of the interproximal dental papilla. J Periodontol 1992;63:995-6.
3. Martegani P, Silvestri M, Mascarello F, Scipioni T, Ghezzi C, Rota C, et al. Morphometric study of the interproximal unit in the esthetic region to correlate anatomic variables affecting the aspect of soft tissue embrasure space. J Periodontol 2007;78:2260-5.
4. Lee DW, Kim CK, Park KH, Cho KS, Moon IS. Non-invasive method to measure the length of soft tissue from the top of the papilla to the crestal bone. J Periodontol 2005;76:1311- 4.
5. Jeffcoat MK, Wang IC, Reddy MS. Radiographic diagnosis in periodontics. Periodontol 2000 1995;7:54-68

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