Effects of autolog saliva on biofilm formation of streptococcus mutans isolated from caries and caries-free subjects

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Abstrak

Saliva and Streptococcus mutans play role in biofilm formation. Saliva and S.mutans virulence are different between subjects with and without caries. Objective: The aim of this study was to evaluate the effects of autolog saliva on biofilm formation of S. mutans isolated from caries and caries-free subjects. Materials and Methods: Saliva and plaque samples are obtained from caries and caries-free subjects. Plaque samples were cultured on TYS20B for 3 days. Selected colonies were picked and cultured on TSB for 3 days. After colony counting, biofilm assay was conducted and inoculated for one day. The biofilm was tested using crystal violet binding assay and quantified by measuring the optical density at 655 nm wavelength. Result: The optical density of S. muttans biofilm isolated from subjects with caries were different from taste with no caries. Biofilm formation of S. muttans isolated from caries and caries-free subjects with and without the presence of autolog saliva were different. Conclusion: Autolog saliva influences S. mutans biofilm formation and there is a tendency that is higher than those from subjects with no caries.