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Behavior of *Streptococcus mutans* on enamel surface coated with initial biofilm in vivo

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Adherence of oral microorganisms to the surface of dental materials is viewed as an essential stride in the advancement of auxiliary caries and periodontal illness. This research was to look at the underlying bacterial attachment on enamel surface in vivo. The point of this analysis was to explore and think about the adherence of various *Streptococcus mutans* to initial biofilm on enamel surface until 48 hours keeping in mind the end goal to discover conceivable contrasts. Bovine enamel samples were incubated with two different *Streptococcus mutans* as UA159 and ATCC25175 for 2, 4, 6, 24 and 48 hours. There were two negative controls, the samples incubated in saliva and bacterial culture without any *Streptococcus mutans*. In other case, first enamel samples incubated with *mutans* in BHI medium, second enamel samples were incubated with *mutans* in sterile saliva and the last samples coated with human saliva proteins then incubated with *mutans* in BHI medium. The adherent microorganisms were evaluated and envisioned utilizing checking electron microscopy (SEM) and live/dead recoloring. The lowest bacterial count of *Streptococcus mutans* (UA159) was detected on initial biofilm on enamel 4 hours and the highest bacterial count of *Streptococcus mutans* (UA159) 24 hours. Uncoated enamel samples surface exhibited no anti-adhesive properties in BHI with UA159. Further improvement of the surface characteristics is essential for *Streptococcus mutans*. *Streptococcus mutans* (ATCC25175) were detected to release the secretion 6 hours on initial biofilm, while *Streptococcus mutans* (ATCC25175) were adhesive force. Compared to different *Streptococcus mutans*; coated and uncoated enamel in BHI and saliva exhibited various adhesive properties.

Biography

Arzu Erol completed her graduation in Molecular Biology and Genetic and working as a Faculty of Science, Bulent Ecevit University, Turkey and also visiting host in Clinic of Operative Dentistry, Periodontology and Preventive Dentistry, Germany

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