

PREDICTIVE VALUES OF THE DETECTED STREPTOCOCCUS MUTANS, STREPTOCOCCUS SOBRINUS IN SALIVA IN CHILDREN WITH PRIMARY DENTITION FOR THE PRESENCE OF DENTAL CARIES



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Introduction: Streptococcus mutans and streptococcus sobrinus are considered to be the main etiological agents for the appearance of dental caries in humans. It has been established that in children of pre-school age in whose saliva s. mutans and s. sobrinus have a significantly higher incidence of dental caries than those with the presence of only s. mutans

Materials and methods: In the examination we included 74 examinees at the age from 4-6 years (primary dentition), from which 31 were with a dmft=0 (control group) and 43 examinees were with dental caries (studied group). Isolation of s. mutans and s. sobrinus samples of saliva we did with genomic charge switch Forensic DNA Purification kit (Invitrogen). (Invitrogen corporation 1600 Faraday)

Results: In the experimental group of 43 (58, 10%) children, s. mutans was isolated in 36 (48, 60%) of the saliva and 7 (9, 50%) was not isolated s. mutans. In the control group of a total of 31 (41, 90%) children, in 18 (24, 30%) of children from the saliva, s. mutans is isolated, and 13 (17, 60%) of children from the saliva is not isolated s. mutans. In the distribution of data related to the detection of streptococcus mutans in saliva in children with primary dentition, there is a significant difference between the two groups for Pearson chi square = 6. 01 and $p < 0. 05$ ($p = 0. 01$). In the experimental total of 43 (58, 10%) children, s. sobrinus was isolated in 35 (47, 30%) of the saliva and 8 (10, 80%) was not isolated in the control group. In the control group of 31 (41, 90%) children, in 17 (23, 00%) children from the saliva isolated s. sobrinus and in 14 (18, 90%) children from the saliva is not isolated s. sobrinus. In the distribution of data relating to the detection of streptococcus sobrinus in saliva in children with primary dentition, there is a significant difference between the two groups for Pearson chi square = 6. 08 and $p < 0. 05$ ($p = 0. 01$). When we correlate the bacteria s. mutans, s. sobrinus in the saliva with the existence of dental caries we can conclude that there is a significant correlation ($p < 0, 001$)

Conclusion: The salivary bacterial and nonbacterial parameters can be used as serious screening factors and can seriously participate as an instrument in the assessment of the dental caries risk