Indicators of Caries Risk in Children with Type 1 Diabetes Mellitus

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Background

• Diabetic children require not only strong attention for acute and chronic complications, but also require attention to dental health.

Objective

• To evaluate the interaction of caries risk indicators and metabolic control in children with type 1 diabetes mellitus.

Subjects & Methods

The study included 50 children with type 1 DM and 50 healthy controls. Diabetic children were classified into 3 groups: well, fairly, and poorly controlled based on glycosylated hemoglobin level. Personal, family data, medical and dental history were collected. Children were examined for caries experience, plaque, and gingival condition. Saliva samples were obtained for culturing mutans streptococci, lactobacilli, and Candida, and colony forming units were counted.

Results

• No significant differences existed between all groups regarding caries experience or mean log count of microorganisms. Diabetic children differed significantly from healthy children in parental occupation and education, dental visits, oral hygiene, and plaque and gingival indices, whereas no differences were observed among children with different levels of metabolic control regarding these factors. Regression analysis identified mutans streptococci as a significant variable affecting caries experience in diabetic children.

Conclusions

Regarding the interaction of caries risk indicators and metabolic control on caries experience in diabetic children, the only variable that showed a significant effect was mutans streptococci.

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