

EVALUATION OF SALIVA OF HEALTHY STUDENTS AND PATIENTS WITH DIABETES MELLITUS: PHYSICAL AND CHEMICAL PARAMETERS

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Keywords: physical and chemical parameters of saliva, diabetes mellitus, oxidative stress.

Relevance: Diabetes mellitus is associated with functional disorders of almost all organs and systems, including the oral cavity. Diabetes mellitus leads to metabolic disorders of protein, carbohydrate and lipid metabolism. This causes hyperglycemia and ketoacidosis. Changes in chemical parameters in somatic diseases are given less attention. This process is characterized by oxidative stress in case of diabetes mellitus. Limited research data on the physical and chemical properties of saliva determine the relevance of our investigation.

Objectives: To make a comparative evaluation of the physical and chemical parameters of saliva in students with diabetes mellitus.

Materials and methods: The study involved about 30 people. There were 2 groups with sampling data from the medical center of the educational institution with the informed consent of the students' parents: observation group (young people with diabetes mellitus) and comparison group (healthy students). To evaluate physical and chemical properties saliva of all the subjects was collected, and salivation rate, viscosity, saliva surface tension, and saliva mineralization potential were measured.

Results: The results of saliva tests demonstrated that the salivation rate and saliva viscosity did not differ significantly in both groups. Glucose concentration was different to compare with normal level in the observation group. This fact can give evidence to the presence of hyperglycemia in the blood.

Conclusions: 1. The most significant physical and chemical properties were the surface tension and mineralizing potential of saliva, while their values differed from normal ones. 2. Concentration of glucose in the blood serum of people with diabetes demonstrated mild hyperglycemia.

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