



## **Fund “Nauka” Project № 15018 Resume – Competition-Based Session 2015:**

**“Complex oral diagnostics of children and adolescents with diabetes mellitus and obesity”**

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Very often in outpatient dental practice in the treatment of inflammatory diseases of the periodontium, caries and its complications, the dentist finds symptomatic manifestations of various diseases of the organs in the oral cavity. Underestimation of this somatic pathology can lead to complications during the treatment of patients and to the ineffectiveness of dental therapy.

The aim of the study was to make a complex oral diagnosis of children and adolescents with diabetes and obese children in order to establish the frequency and features of oral pathology, the condition of the hard tissues of the teeth, periodontium and oral mucosa in order to develop a complex method of prevention and treatment. Lead researcher was Dr. Christiana Madjova, DM.

257 children were included in the study. The study was conducted in the time interval January 2014 - May 2016. For the first time in our country, a complex oral diagnosis of children and adolescents with diabetes mellitus and those with obesity has been made to establish the frequency and features of oral pathology, the condition of the hard tissues of the teeth, periodontium and oral mucosa.

A proportional relationship has been established between oral lesions and metabolic homeostasis disorders. The positive influence of the adequate methods of treatment of the chronic disease (diet, type of insulin, metabolic control, physical activity, etc.) on the control of diabetes mellitus, resp. on the organs in the oral cavity. The peculiarities of the physical, biochemical and immunological characteristics of saliva as specific diagnostic indicators for assessment of oral status in diabetics are analyzed. The risk factors for adolescents with diabetes mellitus, as well as those with obesity, which affect their dental health, were analyzed. The relationship between risk factors (poor metabolic control, poor oral hygiene and eating habits) and the occurrence of oral pathology has been established.

Based on the research, an algorithm for a complex medical-dental approach for prevention and treatment of children and adolescents with diabetes and obesity and a protocol for the behavior of dentists has been developed.