

Manifestation of Diabetes Mellitus in the mucous membrane of the Oral Cavity

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Abstract: Analysis of data obtained by examination of 40 patients with type I and types II diabetes was held. Examination included polls and dental examination. Polls were held with simple questions about diabetes duration, food tastes, hygienic care of oral cavity. To obtain information, we conducted a patient survey and a dental examination in parallel. Information from all patients' outpatient records was also taken into account.

Keywords: diabetes mellitus, glucose level, periodontium, oral cavity, prophylaxis, gingivitis.

Relevance.

Diabetes mellitus is one of the most progressive diseases in the world, leading to a large number of complications in various body systems, including the dentoalveolar system. (Samoylik M. M., 2003). According to WHO, 422 million people worldwide suffer from diabetes today. In 2016, 1.6 million deaths were caused by diabetes. By 2030, diabetes will become the 7th cause of death worldwide. Thus, according to the ministry, the number of registered patients with diabetes in Uzbekistan is 202,998 people (Anhor.uz). According to epidemiological data, the prevalence of diabetes in the republic is five percent. The relevance of studying the state of the oral mucosa (SOPR) In patients with diabetes mellitus, it is due to the medical and social significance of this disease due to its progressive growth and numerous complications. Given that diabetes mellitus is characterized by various morphofunctional and metabolic disorders, dental manifestations of this disease are noted in the vast majority of patients, and some dental specialists indicate 100% damage to the organs and tissues of the oral cavity in patients suffering from diabetes mellitus [1,2]. In diabetes mellitus, relative or absolute insufficiency of the

pancreatic hormone insulin develops. It is necessary to bring glucose to the cells of the body, which enters the blood from food and provides energy to the tissues. Also, in diabetes mellitus, a pathogenetic factor is Hyperglycemia - a condition in which the blood and urine glucose levels are increased, while in the tissues of the body there is a catastrophic lack of glucose. With an increased content of sugar and glucose in the blood with a simultaneous lack of organ tissue cells, there is glucosuria, polyuria, dehydration, a characteristic decrease in the function of the salivary glands - hyposalivation, dryness of the oral mucosa is noted [3].

Purpose of the study to determine the features of the state of SOPR in patients with diabetes mellitus by examining the manifestation of DM on the oral mucosa. Also, the questionnaire method is used to analyze the most common disease of SOPR in DM. Based on the obtained data, optimize dental care for patients with DM.

The analysis of the survey data and dental examination of 40 patients with type I and type II diabetes mellitus was carried out. We developed our own questionnaire, which patients filled out directly at the reception of the district general practitioner. Data on the time since the diagnosis of diabetes, the average fasting blood glucose level, the patients' adherence to diet and glycemic control, as well as to oral care were taken into account.

With each patient, an educational conversation was held about the impact of constantly elevated blood glucose levels on human tissues and organs, including the state of the oral cavity, as well as the need for preventive care for it. The dental examination included visual examination, palpation, and probing of the gums.

The results of the study and their discussion

The age of the examined patients ranged from 25 to 55 years, the average value was 35 years. The duration of the disease is from 1 year to 25 years. 65% were patients with normal fasting capillary blood glucose levels with self-monitoring of more than 6 mmol / L, i.e., those in the stage of decompensation and having inadequate control of diabetes mellitus [4]. And only 15% of patients maintained glucose levels within 5.0-6.0 mmol/l.

81% of patients monitor their fasting glucose level once a week and more often, the rest-1-2 times a month and less often. According to the survey data, more than 2/3 of patients follow the diet prescribed by the doctor and include the restriction of carbohydrates in the composition of flour, fruits, vegetables and sweets. The remaining patients indicated that they limit their diet only to sugar in drinks and / or flour.

With uncontrolled DM, the circulation of markers of systemic inflammation in the blood (C-reactive protein, fibrinogen, cytokines, etc.) increases, the immune response and the ability of tissues to repair is impaired. In diabetes mellitus, the susceptibility of teeth to caries increases, and the probability of tooth loss increases [5, 6]. For patients with diabetes mellitus, the lesion of the mucous membranes in the form of xerostomia, i.e. dryness in the oral cavity caused by the suppression of the function of the salivary glands, is quite characteristic. It is one of the early signs of oral pathology in diabetes mellitus. In the study, it was confirmed that people who do not control the level of glycemia are more likely to have problems with the mucous membrane. The phenomena of xerostomia in the group of examined patients were more frequent with the usual level of glycemia above 8 mmol/l. In addition, much attention was paid to the presence of inflammatory changes during the examination. In patients with diabetes mellitus, the incidence of gingivitis and periodontitis increases to 51-98% [7]. At the age of 30 to 50 years, about 15% of the subjects complained of

bleeding gums and painful sensations during brushing their teeth, during dental examination, these individuals showed signs of chronic generalized catarrhal gingivitis (hyperemia, edema, flask-shaped swelling of the gingival papillae). In patients aged 50 years and older, the clinical signs of chronic generalized periodontitis (halitosis, the presence of dentoalveolar pockets and pathological mobility) were determined in 60% of cases. The severity of this process varied from moderate to severe, when the depth of the periodontal pockets was 4-6 mm or more. You should also pay attention to the fact that about 75% of all subjects do not spend enough time brushing their teeth, do not use additional products and hygiene items, such as mouthwash.

In the study, it was confirmed that patients who do not control the level of glycemia are more likely to have problems with the mucous membrane. Also, in people aged 45 years and older, the clinical signs of chronic generalized periodontitis were determined in 60% of cases. Based on the data obtained, it can be concluded that there is a need for closer cooperation between the attending physician (therapist, endocrinologist) and the dentist and for educational work among patients aimed at increasing their adherence to the treatment of diabetes, the formation of a healthy lifestyle, which also includes preventive oral care.

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