

CHANGES AND DISEASES OF THE ORAL CAVITY IN PATIENTS WITH TYPE 2 DIABETES MELLITUS.

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Relevance. Diabetes mellitus is one of the progressive diseases all over the world, leading to a large number of complications in various body systems, including the dentition [1]. In recent years, studies have revealed that the prevalence of diabetes in all countries is 1.5-3% of the total population and the total number of people with this pathology has exceeded 177 million, and according to WHO, by 2025 it will increase to 300 million [2].

Purpose: to study the dental status of patients with type 2 diabetes mellitus.

Tasks:

1. Investigate cases of diabetes in the mouth.
2. Identify the most common dental treatment for type 2 diabetes.
3. Familiarize yourself with the presentation of dental pathologists in children with diabetes mellitus.

Material and methods

An analysis was made of two scientific articles, two dissertations and nine scientific schools of manuals.

Results and discussion

Type 1 diabetes mellitus is a chronic disease characterized by an absolute deficiency of insulin as a result of the development of its production by the pancreas. Leads to the development of persistent hyperglycemia and complications. The incidence rate is 15/100,000 of the population. Usually occurs in people under the age of 30, but 10-15% later. Type 2 diabetes mellitus is a chronic inflammation caused by insulin resistance and a relative insulin deficiency or secretion defect. This form of diabetes occurs in 80-90% of cases. The incidence rate is 300/100,000 population [3]. There are cases when it was the dentist who first diagnosed diabetes. Among the first cases of the disease, the following signs were found: dry and bright red lips; angular cheilitis; xerostomia; burning of the mucous membrane; the smell of acetone from the mouth; lack of filiform papillae on the surface of the tongue; polydipsia; polyphagia; swelling of the parotid salivary glands. The skin of the face in patients with diabetes mellitus is pink (a consequence of blockage of capillaries), hepatic chloasma and cholesterol nodes on the skin of the eyelids can also be observed. With a decompensated disease, rubeosis ("diabetic blush") may appear - skin hyperemia in the region of the skull, chin and superciliary arches.

Damage to the hard tissues of the teeth in diabetes mellitus is not more common than in healthy people and depends on the course of the underlying disease and hereditary factors. Histopathological examination of the pulp of extracted teeth in people with diabetes mellitus revealed that it mainly contains large multiple denticles, and pathomorphological changes are both inflammatory and dystrophic. The concentration of glucose in saliva in patients with diabetes

mellitus ranges from 0.44 to 6.33 mg per 100 ml (the norm is from 0.24 to 3.33), which contributes to the active reproduction of bacteria, the rapid formation of plaque and the deposition of tartar. It was noted that the level of hygiene in patients with DM is 2.5 times worse than in healthy people (hygienic index according to Fedorov-Volodkina). Among the nonspecific changes and diseases of the oral mucosa in diabetes mellitus, there are: swelling of the mucous membrane of the cheeks and surfaces of the tongue along the line of closure of the teeth (31.7%); atrophy of the filiform papillae of the tongue (2.6%); cheilitis, recurrent aphthous and ulcerative stomatitis (17%); lichen planus and leukoplakia (3.2%) . It was noted that at the stage of decompensation in patients with diabetes mellitus, there is a decrease in taste sensitivity, which is associated with the work of compensatory mechanisms . The incidence of periodontitis in patients with diabetes varies from 52% to 90%. The relationship between the state of periodontal tissues and the course of diabetes mellitus has been established. In patients with a latent or mild form of diabetes mellitus, periodontitis of 1 and 2 degrees more often develops, and in moderate and severe forms - 2 and 3 degrees. With a disease duration of up to 1 year, changes in the periodontium are observed in 28% of patients, and after 10-15 years of the disease - in all patients. Currently, the leading place in the pathogenesis of periodontitis in DM is occupied by angiopathy of periodontal tissue vessels. The cause of vascular damage is dysproteinemia, which in turn develops due to changes in vascular permeability and the accumulation of fluid and protein in tissues. In diabetes, metabolic disorders can lead to various changes. As a result of experimental studies, it was found that the function of the salivary glands decreases in alloxan diabetes. 95% of diabetic patients have xerostomia, 5% have a sweetish taste in the mouth. Elderly patients are characterized by insufficient secretion of saliva, as a result of which the mucous membrane becomes dull and waxy, the tongue with severe atrophy of the papillae .In patients with diabetes mellitus, lesions of the peripheral nervous system are noted, while of the cranial nerves, facial (1.9%) and trigeminal (2.3%) are more often affected.

Manifestation of dental complications in children. The nature of changes in the oral cavity in children with diabetes mellitus depends on the course and duration of the disease. The intensity of caries lesions in children with diabetes is no more pronounced than in healthy children, and even complications do not contribute to its development. The environment of the oral cavity of sick children does not contain additional factors that reduce the resistance of hard tissues of the tooth to caries, but the regenerative abilities of the oral mucosa are reduced [1]. Vascular changes in periodontal tissues in children with DM are observed earlier than in other organs. When examining children with diabetes in 50% of cases, periodontal lesions are detected, while lesions are more often localized in the area of the molars of the lower jaw. In the absence of treatment, the signs of periodontitis in diabetes in childhood are: bleeding of the gingival papillae, bright red color of the gingival margin, bulging of granulations from pathological gingival pockets is possible. Children also experience angular cheilitis,

geographic tongue, oral candidiasis, chronic catarrhal and recurrent aphthous stomatitis [2,3].

Conclusions

1. Among the first manifestations of diabetes, the following signs were noted: dry and bright red lips; angular cheilitis; xerostomia; burning of the mucous membrane; the smell of acetone from the mouth; lack of filiform papilla on the surface of the tongue; polydipsia; polyphagia; swelling of the parotid salivary glands.

2. Among dental diseases, the most common in diabetes mellitus is periodontitis (up to 90%).

3. In children with diabetes mellitus, changes in the oral cavity are of the same nature as in sick adults.

List of literature:

1. Dadabaeva, M. U., and R. Z. Normurodova. "Kliniko-funkcional'nye izmenenija slizistoj obolochki proteznogo lozha do i posle protezirovaniya u bol'nyh saharnym diabetom 2 tipa." *Medicus 2* (2017): 57-8.

2. Дадабаева, М. У., and Р. З. Нормуродова. "Клинико-функциональные изменения слизистой оболочки протезного ложа до и после протезирования у больных сахарным диабетом 2 типа." *Medicus 2* (2017): 57-58.