

HYPERGLYCEMIA ROLE IN DEVELOPMENT OF DISTURBANCE OF A CONDITION OF THE HOMEOSTASIS OF THE ORAL CAVITY IN PATIENTS WITH THE DIABETES MELLITUS

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Summary: In an out-patient department of the Tashkent State Stomatologic Institute (TSSI) results of stomatologic inspections of 40 patients with the diabetes mellitus (DM) were studied. It is established that the stomatologic status of patients with DM is characterized by caries of teeth, the changes of tissues of a parodont which are naturally expressed at a decompensation of carbohydrate metabolism. The mucosa of oral cavity and a red border of labiums at patients differs in a polymorphism of pathological changes which depend on extent of compensation and prescription of a disease.

Keywords: diabetes mellitus, hyperglycemia, homeostasis, oral cavity, caries of teeth.

Relevance. The diabetes mellitus is one of the main problems of health care in the majority of the developed countries of the world. It is caused by an early invalidism and a high mortality of the patients having this disease. In this regard detailed studying of a condition of the acid and main equilibrium in oral cavity at sick DM, and in particular, - determination of PH values of salivary secret (SS), local pH of the lingual plaque (LP) and the gingival liquid (GL) in aspect of prophylaxis and complex treatment of diseases of a parodont is represented actual.

Purpose of the investigation. To study a condition of an oral cavity at patients with a diabetes mellitus by studying of the acid and main equilibrium of stomatic liquid.

Materials and methods: In an out-patient department of an adult therapeutic odontology of clinic of TSSI results of stomatology inspections of 40 patients with a diabetes mellitus were studied. All patients were distributed on 2 groups: the main and group of comparison. The main group included 18 patients with a diabetes mellitus in a condition of compensation, subcompensation and decompensation. Age range of patients was rather wide, at the same time the main quantity of them fell on age from 40 to 59 years (75%). The group of comparison was made the 22 patient without existence of clinically established diagnosis of a diabetes mellitus of the 2nd type.

Results and discussions. The condition of a homeostasis in an oral cavity at DM has a series of features. Existence of a microangiopathia and the increased maintenance of glucose in the admixed saliva (AS) exert negative impact on tissues of parodont and reduce its reparative function. The hyperglycemia and "jumps" of level of glucose in a blood within a day often lead to suppression of sialosis, feeling of dryness in an oral cavity. The maintenance of a glucose in AS at a periodontal disease against DM fluctuates within 0,15 – 0,23 mmol/l. Depression of salivation against a glycation of tissues creates favorable conditions for development of dysbacteriosis in an oral cavity with activation of a parodonto-pathogenic and fungi microflora. The specified facts are capable to influence the acid and main balance of oral cavities that leads to a strain of compensatory mechanisms and destabilization of system of maintenance of a local homeostasis. For example, pH SS at patients with Diabetes tends to shift in the acidic party, and averages $6,82 \pm 0,15$ units of pH. Amplitude of pH test curve after a carbamide load (which reflects activity of an ureasopositive microflora in an oral cavity) makes $0,94 \pm 0,05$ units of pH that is reliable more, than at surveyed without DM. In case of DM in an oral cavity against fabric and liquid acidosis there is a topographical redistribution of zones of a functional microbe alkalosis caused by ecological disruption of oral microflora and which is followed by increase on average by 1,5 times ammonia - the producing activity of a microbic raid of language. For express diagnostics of DM and dysbacteriosis in an oral cavity on stomatologic acceptance it is possible to use the offered methods of determination of content of glucose in SS and determinations of amplitude of pH test carbamide curve in the field of a language tip. The combination of individually planned antimicrobial therapy

and applications of hydroxide of copper-calcium in periodontics pockets allows to perform effective correction of ecological and acid and main equilibrium in an oral cavity at sick DM. The assessment of indicators of pH test carbamide curve in the area a tip of language allows to carry out express diagnosis of dysbacteriosis to oral cavities without use of microbiological methods.

Conclusion. The stomatologic status of patients with DM is characterized by the high rates of intensity of caries of teeth, changes of tissues of a parodont of inflammatory character which are naturally expressed at a decompensation of carbohydrate metabolism. The mucosa of oral cavity and a red border of labiums at patients differs in a polymorphism of pathological changes which depend on extent of compensation and prescription of a disease.

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