dant system were found to follow by the accumulation of the second products of lipid peroxidation (LPO) only in the persons of Group III (5.44±3.46 mkM/l), thereby, there were no significant differences from the control values (4.43±2.37 mkM/l, p>0,005). As to studying the polyfunctional index level - nitrogen oxide it should be noted that there was a slight (p>0.005) decrease in its level in blood sera of the workers of Groups I and II (35.33±9.29 mkM/l and 34.34±78.74 mkM/l, respectively) compared with the control values (39.23±13.78 mkM/l). Thereby, the trend to increase in this index was observed to be in the persons with the diagnosis of occupational disease, revealed at present (38.41±11.99 mkM/l), compared with the persons of Groups I and II (p=0.090 and p=0.050, respectively). Simultaneously, the long-term stopping the exposure to the toxicant in the workers with the revealed diagnosis of CMI was not found to lead to the alteration in the NO metabolite concentrations in the blood sera (38.95±11.51 mkM/l), compared with the indices in the patients examined with the diagnosis revealed at a present. So, SOD activity index was found to be the most sensitive one to the mercury exposure in the workers of all the groups. This ferment is known to take part in the dismutation reaction of superoxide-anion radical and the decrease in its activity is observed in inducing the tumour process, in the case of metal intake deficiency entering the active ferment centre. In this connection, it may be supposed, that the exposure to metallic mercury leads to the disorders of metabolism of this metal or induces the inhibition of the active SOD centre. The decrease observed in the fermentative antioxidant function was found to follow by the decrease in the reduced glutathione concentration, giving together a more pronounced disorder degree of antioxidant systems: there is an opinion that the interaction between reduced glutathione and the radicals may be effective only under conditions of the removing O^{-}_{2}, that's why glutathione may form with SOD an original antioxidant systems. The reactions with forming the reactive thyil radicals may be developed in the disorder of SOD activity. Thus, the restoration of the concentration of the reduced glutathione in the persons with diagnosis of occupational diseases having no exposure to metallic mercury at the background of the decreased SOD activity may lead to the intensification of oxidative processes. This fact, possible, plays a definite role in progressing the neurological disturbances observed in the persons of this Group. As to ceruloplasmin and uric acid, their participation in the oxidative stress processes in exposure to metallic mercury was not found to be significant, in all probability. The accumulation manifestations of active oxygen forms need to study not at the level of second products of lipid peroxidation, but in the form active radicals.

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DIFFERENCE IN RATIO OF "GROWTH" NITROGEN AND "MAINTENANCE" NITROGEN IN C_3 AND C_4-PLANTS

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One way to promote plant productivity lies in nitrogen nutrition various level usage for photosynthesis intensity regulation. The C_4 – plants (amaranth, panic grass, etc.), due to their special type of photosynthesis, have arrange of advantages over C_3-plants (wheat, celosia, etc.) in taking carbon dioxide and reaching high productivity (Magomedov I.M., 1988). Nevertheless, for C^4-plants the searches of ways to promote the productivity are also important. In C_4-plants the nitrogen intake photosynthetic efficiency (NIPE) defined as photosynthesis per nitrogen unit is significantly higher, than in C_3-plants (Brown R.H., 1978). However, for not all research men stick to such point of view (Koshkin Ye.I. and others, 1955), clearing up the reasons underlying such a phenomenon is rather topical. The purpose of the present work has been the follow-up study with intent to test the hypothesis about the direct dependence of NIPA on the C_4-photosynthesis intensity in amaranth leaves, and also the nitrogen status value clarification for the photosynthesis intensity. The study objects were – amaranth (C_4-plant) and celosia (C_3-plant) of the Amaranthaceae family. We supposed that in young leaves, where the protein synthesis was going on, the photosynthesis rate (PR) should be higher, than in old ones, where the protein synthesis was restricted. The findings testified that the PR of amaranth young and old leaves in nitrogen variant with an eye to $1dm^2$ of the surface was high. At the irrigation with the nitrogen free solution the PR decrease occurred. The PR with an eye to dry weight with nitrogen supply remained at the same level in both young and old leaves; but with nitrogen lack a significant PR decrease took place, especially in lower leaves. The dry weight of both old and young leaves of amaranth was twice as high, than that of the C_3-plant. The photosynthesis intensity per 1 mg of chlorophyll was higher in young amaranth leaves both with and without nitrogen; the excluding of nitrogen from the solution didn't change the amaranth PR. In old leaves it was lower, than in young ones. The amount of nitrogen in amaranth old leaves was by 20-25 % lower, than in young ones. The same picture was observed at the NIPE calculation. The value of this factor in amaranth, both in young and old leaves with and without nitrogen, was much higher, than in C_3-plant. As it was shown in our previous work (Shumilova A.A., Magomedov I.M., 1994), indeed, in amaranth the NIPE is significantly higher,

than in C_3-plants, that is consistent with the data of a range of authors (Wrown R.H.,1978; Oaks A.,1994). It is known that more than half of the cell's soluble protein falls to ribulesobiphosphate carboxylase/oxigenase (RBPC/O), especially in C_3-plants. Amaranth contains significantly less RBPC/O, therefore the nitrogen demands for basic enzymatic proteins synthesis are considerably decreased as well, and its main part is used to new cellular structures formation. So, in response to nitrogenous fertilizers application in amaranth a more intensive biomass growth, than that in C_3-plants, takes place and less nitrates, than in the last ones, is accumulated in leaves. In all probability, it is it that explains a high NIPE level in amaranth. On the ground of the results obtained it is offered to divide mineral nitrogen in plants into "growth" nitrogen, which is higher in C_4-plants, and homeostasis "maintenance" one, which is considerably prevalent in C_3-plants.

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CLINICAL-LABORATORIAL FEATURES OF ORAL HEALTH STATUS IN DIABETES AND HYPERTENSIVE DISEASE PATIENTS

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An early detection of an attendant physical pathology in dental patients becomes more and more actual one year by year in connection with constant occurrence frequency increase of somatic diseases with modifications of their clinical implications and penetration beyond the framework of typical age range. First and foremost it concerns the nosologies, the intrapopulation expansion of which has acquired a pandemic character – diabetes (DB) and hypertensive disease (HD).

It goes without saying that in those cases, when the patient is aware of a somatic disease presence in him, the dentist will get the information content sufficient for the choice of further treatment at the beginning of attendance already, when the anamnesis is correct. However, the problem is that only about 40% of DB and HD patients are aware of their suffering from these diseases, as a result, the anamnestic information will be inauthentic – the patient will merely not be able to tell the doctor about what he doesn't know himself.

The information about the presence of an attendant physical pathology is able to influence to a great extent on the stomatological tactics. So, the HD presence is a contraindication to the administration of anesthetics combined with adrenalin. A stomatological surgical intervention in the DB patient will require an antibacterial cover in most cases, but at the same time a "blind" prescription of antibiotics will not be useful at an analogous intervention into the patient not suffering from DB. The establishment of an interconnect system between the doctors of various specialties and operative corresponding of patients to a required specialist allows reducing the terms of patients' profile observance beginning and optimal medicamental correction of their state. It improves the health care delivery quality, reducing non-profile expenditures associated with redundant diagnostics and diminishing the resulting losses due to the quality retaining and such patients' longevity increase.

The **purpose of the study** is to prove the possibility to define hypertensive disease and diabetes presence risk persons at a dental attendance on the basis of clinical and laboratorial evaluation of their oral health status.

General characteristics of the study material

The clinical research of the study participants was carried out in accord with a specially developed card. The persons corresponding to the fitting criteria were included into the study. In all the examinees the index characteristic of their oral cavity organs and tissues, the composition and main physicochemical properties of oral liquid, the elemental composition of dental deposits were studied. The clinical study was carried out by the unified dental practice methods. The elemental composition of dental deposits was studied on the facilities accredited by the RAS for the performance of scientific research of biological profile.

After the preliminary stratification the set sample was distributed into five samples randomized in sex and age depending on the kind of physical pathology, the presence or absence of hard dental deposits. The factors supposedly confirming the risk of a concrete somatic pathology were studied. Their individual and resultant value was defined quantitatively. In all the stages of the research the statistical significance of intermediated and ultimate results and the authenticity of the advanced hypotheses were tested by nonparametric statistic methods.

The course of a series of somatic diseases is attended by the oral cavity organs' and tissues' alteration being manifested by a more active course of the carious disease, oral mucosa and parodontium damages. As a result of the present research the index evaluation of oral cavity state in HD, chronic pyelonephritis (CP) and 2 type diabetes patients was studied.

All the research participants were divided into main groups (HD, CP and DB patients) and comparison ones (persons without the studied somatic pathology with dental calculus presence – DCP and with no hard dental deposits – NDC). In all the research stages the statistical significance of the intermediated and ultimate results and the advanced hypotheses' authen-