

Within researched patients there was studied the activeness of ferments of antioxidant protection (MSE, catalase, peroxidase) at the blood plasma and CBA. The analysis of average values of activeness of researched ferments showed, that within patients with COLD Of I and II group there occurs exhaustion of antioxidant protection in comparison with control, mainly at the late stages of disease. Within patients of II group at the blood plasma the activeness of peroxidase was decreased in comparison with patients of I group ($p < 0,05$).

Carried out researches confirm the increasing number of proves, that while the COLD there occurs disbalance at the system of oxidants-antioxidants to the side of oxidants [2, 3, 6]. Within observed patients with COLD of average and severe degree of severity at the stage of intensiveness the markers of oxidative stress were found at the blood plasma and condensate of breathed out air.

Conclusions

1. Chronic obstructive lung disease at the phase of intensification is characterized by the strengthening of peroxidation of lipids and depression of fermentative link of antioxidant protection in the blood plasma and condensate of breathed out air, which are progressing by the measure of increase of the severity of disease.

2. The change of the level of products of lipid peroxidation and activeness of ferments of antioxidant protection in the condensate of breathed out air within patients with COLD at the phase of intensification allows to use this non invasive method for the estimation of condition of system oxidants-antioxidants within this group of patients.

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NEW DIRECTION IN TREATMENT OF A DIABETES 2 TYPES

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One of unknown factors in pathogenesis of type II diabetes are insufficiency of adsorption-transport function of erythrocytes. Therefore complex therapy of diabetes 2 types should include actions and medications improving this function of erythrocytes.

Erythrocytes adsorb different substances on its surface. Proportion of adsorbed substances differs, from corresponded indexes of plasma. Erythrocytes easily flow through tighter, than erythrocytes diameter, arterial part of capillaries. Erythrocytes deformation and rotation promote this process. On my hypothesis has been arisen that during passage of each erythrocyte via blood capillaries to exist exchange and mix substances of paraendotelial exchange layer on molecules adsorbed on erythrocytes [1, 2]. After that these substances firstly participate in transcapillary exchange.

Erythrocytes are natural sorbents of substances with high chemical activity. At the same time during denaturation process proteins' adsorbing ability increases. Proteins and lipids with increased adsorbability partially displace glucose

from erythrocytes' surface. Owing to those peculiarities many «dedicated to deletion» substances firstly enter to liver. Glucose has relatively high adsorbability on erythrocytes surface. In particular conditions glucose partially pushes out native proteins and many lipids from erythrocytes' surface. That is why quantity of transported glucose under effect of hormones can sharply increase or decrease.

This and other fact may be explained by absorption- transport function of erythrocytes (ATFE). ATFE participates in creation of new antiedematous (contradictory) factor. Part of adsorbed glucose always goes to tissues. On the place of departed glucose mostly proteins are adsorbed on erythrocytes surface. Correspondingly protein concentration in parietal layer of venous part of capillaries decreases and concentration gradient of protein change. Correspondingly increase protein return from interstitium to blood. This mechanism is strengthened by known erythrocytes' volume increase (and correspondingly adsorption area) at their saturation by carbon dioxide. At the type II diabetes this antiedematous mechanism decreased.

In our experiments on narcotized animals under insulin effect a quantity of glucose sharply decreased firstly among substances, adsorbed on erythrocytes, then in plasma, lastly its content slowly decreased in lymph. Opposite example – multi increase of glucose quantity adsorbed on erythrocytes surface at astronaut's blood on landing day (in plasma glucose quantity increased to the upper level of norm). Adrenalin simultaneously increases content of adsorbed and plasmas glucose [3].

Part of erythrocytes adsorbed glucose always enters to tissues, including regulatory structures. In my opinion it starts insulin mechanism of carbohydrate metabolism regulation. Chronic stresses with frequent ingestion, metabolism problems always supported by increased transport of glucose on erythrocytes surface. At the same time glucose inflow inside the erythrocytes also strengthens. Increased above the norm endoglobular glucose content leads to its connection with hemoglobin.

As much as percentage of glycated hemoglobin increases, erythrocytes' ability to adsorb on its surface glucose and other substances decreases. Relative decrease of glucose transport on erythrocytes, in my opinion, distracts adequate regulation of carbonhydrates exchange.

Probably, it is broken also transport of insulin on erythrocytes surface. It, possibly, is an additional reason of insulin «tolerance» development. Gradually more glucose is transported in plasma – all known symptoms of type II diabetes are getting

stronger. Generally, insufficiency of adsorption-transport function of erythrocytes complicates pathogenesis of type II diabetes.

From the above mentioned it is clear that type II diabetes therapy should include impacts and medicine that improve ATFE. Connection of glucose with hemoglobin and glucose with proteins is very strong. Therefore one of methods of first help is replacement of a donors erythrocytes with increased content of active hemoglobin. Positive effect on type II diabetes is noticed after replacement of part of blood plasma by salt solution [4]. Possibly its connected either to deletion of glycat-ed plasma proteins, or by erythrocytes «washing» with ATFE improvement.

Preparation ASD-2 (Antiseptic stimulator Dorogow, fraction 2 – liquid with a specific smell) on our data, promoted «rejuvenation» to blood and also decrease of glucose in blood. Begin to start to accept a «Preparation ASD-2» it is necessary from the lowest doze. The higher dosage of a medicine can cause visible erythrolysis. Positive action of this medicine, in our opinion, first of all is connected with erythrogenesis and leukopoiesis stimulation. Studying ATFE in clinic, and also influences drugs on this function only begins. Ways of optimization of adsorption-transport function of erythrocytes are not clear. It is possible to assume, that among the effective therapeutic means advertised as cleaners from «slags» (waste-metabolism products), there are the preparations operating first of all on this function.

At insulin-dependent diabetes (type I diabetes) always appears the initial form of a diabetes 2 types develops. Therefore at treatment a diabetes I types it is necessary to consider all the above-stated new opportunities of therapy of a type II diabetes.

In connection to continuous growth of people suffering from type II diabetes, on 20 December 2006, UN General Assembly accepted resolution, according to which diabetes brings the same threat to humanity as infectious epidemics. Possibly insufficiency of ATFE is the last factor which is unknown at type II diabetes pathogenesis. Actions for elimination of this problem will let to stop «epidemic» growth of people suffering from this disease.

In the given publication it would be desirable to emphasize necessity of revealing and creation of new preparations for treatment of a type II diabetes with simultaneous therapy of insufficiency of adsorption-transport function of erythrocytes. On elimination of this insufficiency, on creation and search of more effective preparations, undoubtedly, it is possible to accelerate our researches at

cooperation. With offers on scientific and other cooperation to address by e-mail – e-mail (tatrauf@mail.ru <mailto:tatrauf@mail.ru> a theme of the letter – a science). Wide check of efficiency of methods of treatment developed by us demands the certain financing. For financial support of these our works on studying and therapy of a type II diabetes and a metabolic syndrome the open account. Number of the account (Kazakhstan) KAZKOM VISA 4003 0327 0712 1630 RAUF GAREYEV .

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COMPARATIVE CHARACTERISTICS OF WOUND PROCESS IN PATIENTS WITH PURULO-NECROTIC FORMS OF DIABETIC FOOT SYNDROME

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Learning peculiarities of wound process is one of the main directions in solving a problem of purulo-necrotic complications of diabetic foot syndrome and tactics of surgical treatment. There is marked growth of case rate of diabetes in the recent years. Every second patient with diabetes is underwent surgical treatment, most of which are purulo-necrotic changes on feet, which occur with 28,6-65,0% of patients with diabetes [1, 2, 3]. Nowadays there's an opinion that diabetes negatively influences on wound process [3, 4], slows down adhesion of wounds, which get long and re-

crudescent character. Peculiarities of wound process are associated by disorders of tissue blood circulation in damaged areas, disorders of all types of metabolism, leading to development of acidosis, hypoxia and metabolic intoxication [5, 6], appearance of anaerobic- aerobic microflora in AA of purulent inflammation [7].

Aim of the work is comparable morphological research of wound process in patient with purulo-necrotic affect of lower limbs against diabetes.

Material and methods of research

Clinical data is based on the material, obtained while examining patients with purulent wound on foot. The main group (1 group) was 89 patients without diabetes; control group (2 group) – 93 patients with purulo-necrotic process on foot against diabetes (D). Average age, gender, character of purulo-necrotic process on foot and other parameters were consistent in the marked clinical groups. Morphological research consisted of the following methods: histologic (48 biopsy samples), immunomorphological (25 biopsy samples).

Histologic method

Biopsy samples were fixated in 10% neutral formol and according to traditional method were concreted in wax blocks. Made from wax blocks histologic cuts, 4-5 um thick were dyed with hematoxylin and eosin. Medications were studied and taken picture with the help of microscope DM LB (Leica, Germany) – videocamera JVC (USA) – computer Pentium IV system.

Imunne-morphological method

Peculiarities of granulation tissue in two group of examination were studied with the help of immunoperoxide method using 4 monoclonal antibodies. The same biopsy samples (25 from 48) were studied with histologic method. Antibodies by NOVOCASTRA, DAKO and Lab Vision to marker of vessel endothelium, antigen CD31 (allows visualizing vessels in tissues) and to collagen I type (for collagen formation estimation), to T- lymphocyte-helper (CD4) and T- lymphocyte-suppressor and killer (CD8) were used as primary specific antibodies.

Detection system «UltraVision LP Value HRP Polymer» (goat antibodies to rabbit and mouse), Lab Vision USA was used in order to visualize results of the reaction of connecting antigen with antibody. The result of reaction with antibodies to collagen was estimated according to traditional system of semiquantitative method in grades from 0 to 3 (absence of reaction, weak, moderate and expressed reaction), with antibodies to T- lym-