

strates crystallogenesis on medicamental, surgical, balneological and physiotherapeutic management. On our opinion, the most informative and comfortable for practical using biosubstrates are saliva and urine, but informativity of the monitoring highly increase, if two or more biofluids are analysed simultaneously. It was shown, that character of the crystalloscopic specimen's changes (on the general tendency to organization or destruction of the facia) illustrates the treatment effectiveness. This conclusion with respect general tendency is formed by the analysis of crystallization rate (crystal concentration in microscope visual field), facia destruction degree, homogeneity of elements allotment, cellularity, marginal zone width etc. It is determined, that positive treatment results associate with decreasing of facia destruction degree, cellularity; increasing of facia homogeneity and normalization of crystalloscopic rate for own crystallization (initiation potential for tezigraphic test).

We composed universal algorithm of the crystalloscopic monitoring of patient functional status, which consist of the two or three control points. If we estimate short-time or unitary medical interference, it is enough to investigate the baseline and final condition. In this time the taking of biosubstrates is accomplished. For the treatment scheme, which realized in long time, the three-points investigation is most suitable.

Conclusion. So, it was ascertained, that crystallographic methods of biofluids investigation can be used for the treatment control.

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CLIMATIC AND GEOGRAPHIC FEATURES AND DEATH RATE IN REPUBLIC SAKHA (YAKUTIA)

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The Republic Sakha (Yakutia) occupies territory in 3103, 2 thousand sq.km, that makes 18 % of all territory of the Russian Federation. Forty percent of territory is behind Polar circle, in a zone of a long-term frozen ground. In its limits three hour zones are located.

Distinctive feature of a climate - expressed anticyclone mode of weather and frequent intrusions of air masses from Arctic Ocean with very small maintenance of water steam in summer. Winter is long, cold and not snowy; on a greater part of territory temperature is varying from 40 below zero up to 50 below zero. Summer is short, droughty, and rather hot. In some days of July in the Central Yakutia the temperature reaches up to +31 - +38.

Population of Yakutia, according to census of 2002, is 949 thousand people. The indigenous population, including representatives of small nationalities, makes 50 % (45 % are Yakuts and 5 % - small in numbers people). Indigenous small in numbers people are presented with Evenks, Evens, Dolgans and Yukaghirs. The basic part of non-indigenous population is represented with Russians (41 %), and also with representatives of other people and nationalities.

Centuries-old evolution of indigenous population of the Far North has generated a lot of the adaptive morphological and functional features, allow surviving and saving health in severe conditions of an environment. However the mortality rate coefficient of the population of Yakutia constantly increases and since 1990 for 2005 he has increased in 1, 5 times (from 6, 8 up to 10, 2) whereas in Canada similar on climatic and geographic conditions this parameter in 2006 according to the data of WHO was 7, 86. For last decade (1996-2006) death rate of the population of Yakutia on the basic classes of the reasons on 100 thousand people constantly increases. Moreover the basic part of growth for this period is made by illnesses of system of blood circulation (in 1, 3 times). Only for last five –year period (2002-2006) death rate from IHD (ischemic heart disease) has increased in 1, 13 times, from a sharp heart attack of a myocardium - 1, 35, from cerebrovascular illnesses - 1, 11. It is especially necessary to emphasize fast growth of death rate from illnesses of endocrine system, frustration of a feed and a metabolism which has increased for this period in 1, 53 times, from them

from diabetes - 1, 69. Thus, statistical data show influence of urbanization on health of the population in the North which major factors are infringement of the balanced feed, decrease in physical activity, and increase of psycho emotional pressure.

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CYTOPLASMIC RNA CHANGES IN SKIN HAIR FOLLICLE EPITHELIAL CELLS OF GUINEA-PIGS AT MICROWAVE

INFLUENCE

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In the available literature there are no cytophotometric data about the cytoplasmic RNA changes in skin hair follicles' epithelial cells when affecting by thermogenous intensity microwaves. All this conditioned, especially with due account for the possibility of the obtained experimental data extrapolation for a human, the necessity to carry out our research.

The research was carried out on 65 mature guinea-pig males weighing 400-450 g, from which 35 were used in the experiment, and 30 served as the control. The experimental animals were exposed to the effect of single general microwave irradiation (length of wave - 12,6 cm, frequency - 2375 MHz, power flow density (PFD) - 60 mW/cm², exposure time - 10 min). Excluding the animals from the experiment and sampling the materials were done immediately, in 6 hours, on the 1st, 5th, 10th, 25th and 60th days after finishing the exposure. The flaps of skin were taken from different areas (head (cheek), back, stomach). The photometric activity definition of the cytoplasmic RNA content was performed in 50 cells of outer root sheaths of each cut hair follicles. The hematological control (total count of erythrocytes and leucocytes) was carried out during the experiment.

Right after finishing the microwave effect the decrease, compared to the control, of cytoplasmic RNA is registered, to the maximum extent - in the stomach skin epitheliocytes - up to 86,7%, while in the head and back skin - up to 98,3% and 97,2% from the original accordingly (p<0,05). In the following terms after finishing the exposure to the thermogenous intensity SHF waves a further decrease of the cytoplasmic RNA content in skin cells of all localizations, especially head and stomach, is observed. Thus, on the 5th day after finishing the SHF waves exposure the cytoplasmic RNA

content is maximally decreased in the specified epitheliocytes of head and stomach skin - by 23,1% and 35,8% from the control level accordingly (p<0,05). Beginning with the 10th day an increase of the cytoplasmic RNA content in the cytoplasm of outer root sheaths epitheliocytes of all localizations skin hair follicles is close to the original one (p>0,05).

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INFLUENCE OF NATURAL 1-O-ALCYLGLYCEROLS ON ANTIOXIDANT DEFENCE SYSTEM OF RATS AT ALIMENTARY DISLIPIDEMY

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In recent years a great interest has been attracted to pharmaceutical preparations of sea hydrobionts containing 1-O-alkyl-diacylglycerols (ADG). ADG at entry to digestive tract are broken down to form high activity biological compounds, when affected by lipases, - 1-O-alkylglycerols (AG), which are responsible for hemopoietic, radioprotective, antitumor properties of ADG-containing pharmaceutical preparations. In single publication there is information about antioxidant properties of the preparations rich in ADG. It is AG that are supposed to play an important role in the manifestation of antioxidant properties of the given pharmaceutical agents. The purpose of the work has been the study of 1-O-alkylglycerols' influence on the antioxidant defence system in rats at alimentary dislipidemy (DLP), the 1-O-alkylglycerols being obtained from natural ADG.

The model of alimentary DLP was caused by unbalanced fat composition nutrient budget including high-caloric products and cholesterol. The model development criterion served the cholesterol level in blood serum and liver of the rats exceeded the initial one by more than 1/3. After the development of DLP the rats were given AG intragastrically in the dosage of 0,4 g/kg from the rat's body mass for 30 days (Novgorodtseva T.P., 2007). The 1-O-alkylglycerols were obtained by the method of ADG hydrolysis from the liver lipids of Commander Squid *Berryteuthis magister*. The total antioxidant activity (TAA) of rats' blood