

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

plasma and the catalase activity in erythrocytes were investigated. The level of initial (hydroperoxide of lipids) and final (malondialdehyde) lipoperoxidation products in blood by the spectrophotometric method was determined.

The DLP formation in rats was attended by the lipid peroxidation products accumulation and general antioxidant and catalase blood activity decrease. After using AG the catalase activity increase and the lipid hydroperoxide level decrease in blood plasma were detected in the rats, the TAA normalization and tendency to malondialdehyde concentration decrease were registered. The research findings can testify to antioxidant properties of natural AG, that gives an opportunity to extend the ADG-containing lipids' application at various pathologies attended by the decrease of antioxidant state of the body.

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EFFICIENCY OF PREVENTIVE MAINTENANCE PROGRAM IN DIABETIC FOOT PATIENTS AT OUT-PATIENT STAGE

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During 1999-2004 we have developed and implemented an organizational model of nursing aid to the patients with diabetic foot syndrome (DFS) at out-patient stage. For further research of preventive maintenance program with use of nursing teams, 386 patients have been parted in two groups.

In the first group were 137 DFS patients with mentions of the moderate and expressed restriction of mobility due to age, main and accom-

panying diseases. These patients were actively observed by nursing teams during one-year follow-up. The given group is designated further as group A or group of active home nursing. The second group was made from 239 DFS patients, living out of district of service of the specified clinical bases and consequently inaccessible to observation domiciliary. All of them continued to be observed under the traditional scheme within a year from including in research, periodically they were invited on reception in diabetic foot offices according to prophylactic medical examination rules. This group has been designated as group B or group of typical practice. Both groups of patients during observation received a standard complex treatment depending on type and gravity of diabetes and current form of DFS.

After comparison of sex, age, terms and features of current diabetes, there were not revealed essential differences in both groups. Authentic differences between groups consisted only in degree of mobility restriction and also in frequency of previous amputations which have appeared higher in group A.

The analysis of clinical and social efficiency of preventive actions was performed after 1 year of observation by following criteria:

- quantity and gravity reduction of purulent-necrotic and other DFS complications in observable patients;
- healing terms, depression of amputations level;
- dynamics of the basic indicators of quality of life (QoL);
- frequency and a length of hospital stay concerning DFS;
- patient's estimation of efficiency of home nursing.

The analysis of lower extremities amputations frequency for the one-year observation period has taped authentic prevalence of this indicator ($p < 0,05$) in «typical practice» group of patients - table 1.

Table 1. Comparison of amputations frequency and level in investigated groups during observation (on 100 patients).

Level of amputations	Nursing teams (group A)	" Typical practice " (group B)
Fingers and feet	5,1	7,5
Shin	-	0,8
Hip	-	3,3
The general frequency	5,1	11,7

Among the patients of group A high amputations (at shin and hip level) for the 1-year period of observation were absent, that speaks about more active observation domiciliary. At the same time

variants of various operative measures and their combination at patients were various and variously influenced quality of the further life.