BIOLOGICAL INFLUENCE OF CONTINUOUS WATERING WITH NANOGERMANIUM CITRATE ON THE ORGANISM OF MALE RATS *F3*

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The influence of different concentrations of nano-germanium citrate (HGeC), obtained by the nanotechnology method, in the doses 20 and 200 μg Ge / kg b.m on the organism of male rats F_3, as well as on morphological and biochemical parameters of blood was studied. It was shown that continuous watering with HGeC 20 μg Ge / kg b.m. during the period of physiological and sexual maturation of male rats F_3 led to a statistically significant increase in the hemoglobin content in the blood by 21 %, comparing with the animals of control group, and in animals that were given 200 μg Ge / kg b. m. its level was preserved, as in the control group animals. In animals of experimental groups, no difference was found in the mean concentration of hemoglobin in erythrocytes and the mean content of hemoglobin in erythrocyte comparing with the animals in the control group. However, a significant decrease in the average volume of erythrocytes in the blood of animals in both experimental groups was noted: in the first one - by 16.8 %, in the second - by 6.6 %. Regarding the number of leukocytes, in animals of both experimental groups, no probable changes were detected comparing with control animals group, but noted statistically significant increase in the percentage of lymphocytes and monocytes with a decrease of the eosinophils, for animals of the second group - the probable decrease in segments neutrophils. At the same level of serum iron in the blood of experimental and control groups of rats in anomals of the first experimental group there is a probable increase in TPI by 2.0 times, UIBS in 3.5 times and a decrease in the saturation rate of transferrin by 2.1 times, as well was noted an increase in TIVS - 1.7 times and UIBS 2.5 times in the second experimental animals group. The use of 20 μg Ge / kg b. m. compared to control group of animals resulted in a statistically significant decrease in ALAT activity by 57.3%, ASAT - by 22.4 %, and LF by 52.5 %, as well as a decrease in the level of MSM by 11.3% and an increase in the content of creatinine by 24.3%. Watering to animals 200 μg Ge / kg of b.m.

caused in the blood a statistically significant reduction of the activity of AlAT by 24 %, LF by 35.1 %, as well as the content of urea by 26.8 % and creatinine by 13.3 %.

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