Materials of Conferences

PHARMACOLOGICAL PROPETIES OF NEW DERIVATIVE GABA

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Nowadays by immune physiologists there was proved the most important role of neuroimmune connections in normal and pathological homeostasis of organism. The obvious interest is caused by perspective direction by the creation of new substances at the base of structural analogues γ-aminobatyric acid, which have neuroimmunetropic behaviors. In this work there are represented results of text tests of immune pharmacological behaviours of new derivative γ-aminobatyric acid PDE-GABA

The experiment was carried out at the 48 mouses of line CBA at the age of 3-4 months. Animals were divided into following groups: control – animals, which receive physiological solution and experiment – animals, which receive PDE-GABA at the dose of 35 mg/kg intraperitoneally during three days. The influence of PDE-GABA to the cell and humoral links of immune answer there were examined at the reactions of hypersensivity of slow type (RHST) and passive hemagglutination (RPHA) accordingly. There also was assessed the influence of examined substance to the mass and cellularity of immune competent organs. At the series with the RHST and RPHA the examined substance was interacted simultaneously with the immunization with red blood cells of sheep, and also with an interval in one day before and after immunization. Experimental work was carried out with the taking into account of International principles of declaration of Helsinki. While the comparison of indicators of experiment and control groups there was used a method of variative statistic.

During the experiment there was stated that examined substance under the laboratory code PDE-GABA while the intraperitoneal introduction at the dose of 35 mg/kg during 3 days takes simulated at the relations of cell and hymoral immune reactivity: the index RHST and titre of antibodies in RPHA raise the indicators of control group more than by 35%. It was revealed the stimulating action of PDE-GABA to the proliferative process at the organs of immune system: the mass of spleen and thymus exceeds the control meanings more than by 20%, the number of splenocyte and thymocites more by 60%.

Therefore, received during the experiment results testify to the presence in new derivative GABA – PDE-GABA – immune stimulating behaviors, what indicates to the currency of further researches by the studying of immune modulating actions of substance.

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THE INFLUENCE OF SULFUR-CONTAINING GAS ON MALONDIALDEHYDE LEVEL IN WHITE RATS BLOOD PLASM

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In organisms during all evolution there were produced protective systems, which are summon to safe optimal level of self-radical processes, which changes while different interactions. Astrakhan gas processing complex (AGPC) takes special place among the industrial enterprises of region. From the sulfur-containing discharges of AGPC, the biggest danger for health of population has hydrogen sulfide, which has expressed toxic action to the whole organism. In spite of that fact that hydrogen sulfide has a restoration activity, during its transformation, in the organism there formed active oxygen metabolites and there are strengthen the processes of peroxide oxidation.

The aim of our research was to define the content of final product of peroxide oxidation of lipids (POL) malondialdehyde, and also spontaneous ascorbatedepending speed of POL at the plasma of blood of white rats after chronic inhaler influence with sulfur-containing gas of Astrakhan deposit.

Theresearch was carried out at the fall-winter period of 40 animals of different sex, with the average mass of 180 g, which were contained in standard

conditions of vivarium. The inhalation with sulfur-containing gas at the dose of 150 mg/m^3 was carried out during one and a half of month five days a week 4 hours a day. POL at the plasma of blood was defined spectrophotometrically by the method which is based on the reaction of malondialdehyde with thiobarbithuric acid with the forming of tinctured trimethadione complex.

The analysis of changing the level of malondialdehyde showed the increase of contents of this product both in males ($P < 0,001$), and females ($P < 0,001$). But males have more sharp increase of level of MDA (by 200%), then females (≈ by 63%). The speed of spontaneous and ascorbate depending POL became reliably higher at the phone of influence independently from the gender of animal. Thereby, the results of our research indicate the breach of balance at the system pre- and antioxidants in animals, what testifies that one of the damaging organisms of hydrogen sulfide is strengthening of link self-radical oxidation of different structures of cell membranes and subcellular formations.

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