

THE STUDY OF ANTIOXIDANT PROPERTIES OF THE PLUM LEAVES EXTRACT

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Introduction. One of a topical problems of the modern pharmaceutical science is to create a new more efficient than those are being used remedies to treat diseases of the hepatobiliary system. A prospective group of substances to be studied is natural polyphenols. This is due to the fact that polyphenolic compounds exhibit a wide range of pharmacological activity and play an important role in regulating an oxidative balance in humans and animals. Taking to the account the tradition of the folk medicine to use plums, the search for medications based on the active ingredients of the fruit culture is the urgent task of the pharmaceutical science.

Aim. The test for the pharmacological activity has become the experimental study of the mentioned extract for its antioxidant properties.

Materials and methods. The study of antioxidant properties of the extract from the plums leaves in the system *in vitro* has been performed on a model of spontaneous lipid peroxidation (LPO) in a liver homogenate.

Results and discussion. Experimental data suggest the presence of the substances of the extract from the plums leaves some expressed antioxidant properties. As a result of the addition to the an incubation medium the mentioned extract in an amount of 0.5 mg per 1 g of a liver tissue, it has resulted in a reduction of TBA - active products in the studying samples to 46.5% compared to the control.

The impact of the studying substance on the flow of spontaneous oxidation by increasing its concentration in the reaction medium is characterized by a more expressive inhibition of lipid peroxidation. At a concentration of 1 mg / g of the extract from the leaves of plum has reduced the content of TBA-reagents on average by 75.6%, while the α -tocopherol at a concentration of 1 mg / g - to 56.6%. The most significant activity against lipid peroxidation inhibition the studying extract has revealed at a concentration of 2 mg / d, in which it has reduced the level of lipid peroxidation at 88.1%.

Conclusions. Thus, it has been found out that the substance of the plums leaves extract in the studied concentrations reveals a marked capacity for the inhibition of lipid peroxidation in conditions *in vitro*, and in concentrations of 1 and 2 mg / g is not inferior to the antioxidant properties of α -tocopherol.