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other pro-inflammatory cytokines. *Bupleurum aureum* extract has been shown to exhibit hepatoprotective properties, reducing ALT, AST, and bilirubin levels in experimental models of toxic liver injury.

The combined use of loratadine and *Bupleurum aureum* extract can provide a synergistic effect: flavonoids enhance the antioxidant protection of liver cells and stabilize cell membranes, loratadine reduces histamine-mediated vascular permeability, which in total reduces systemic inflammation, allergic reactions and oxidative stress. Such a combination is promising for use in children with allergic diseases that are accompanied by impaired liver function or require long-term use of antihistamines. Further studies will be aimed at creating a dosage form in the form of a syrup with a mild hepatoprotective effect.

Conclusions. The biochemical interaction between loratadine and *Bupleurum aureum* extract forms the basis for the creation of a new generation of combined antihistamines with additional antioxidant and anti-inflammatory properties. This opens prospects for their implementation in pediatric allergology and pharmacotherapy, taking into account the hepatoprotective potential of the phytocomponent.

EFFECT OF *BUPLEURUM AUREUM* EXTRACT AND ITS COMBINED USE WITH LORATADINE ON LIPID PEROXIDATION INDICATORS UNDER THE ACTION OF CADMIUM CHLORIDE *IN VITRO*

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Introduction. Today, pharmaceutical sciences and medicine are faced with the urgent problems of studying the negative impact of xenobiotics and finding ways to correct these pathologies. Data is rapidly accumulating, indicating that many stress factors, xenobiotic poisoning, including the negative impact of drugs, cause a shift in the balance in the pro-oxidant-antioxidant system and the development of oxidative stress. Therefore, an urgent problem is to study the impact of various substances that may have antioxidant properties on the studied indicators.

The aim of the work – to investigate the effect of dry extract of *Bupleurum aureum* (DEBA) and its combined use with the drug loratadine on lipid peroxidation indices in vitro under the influence of cadmium chloride.

Materials and methods. *In vitro* experiments were carried out to determine the antioxidant properties of dry DEBA and the combination of loratadine with DEBA. For this purpose, blood serum and liver cytosol of male white rats weighing

180-220 g, which were kept under standard conditions of the NUPh vivarium, were used. Blood serum and liver cytosol were incubated for 30 minutes at 37°C in three variants: without any additives, with the addition of cadmium chloride solution (at the rate of 280 μg/ml serum or 2.8 mg/ml cytosol) and with the addition of cadmium chloride (the same dose) and DEBA and the combination of loratadine with DEBA (at the rate of 1 mg/ml serum or 10 mg/ml cytosol).

Results and discussion. As a result of the study, it was found that incubation of blood serum and liver cytosol in the presence of cadmium chloride causes the accumulation of lipid peroxidation products. The obtained results indicate that under conditions of oxidative stress, the preliminary administration of both the goldenseal extract and its combination with loratadine significantly improves the oxidative state of the studied objects. The level of lipid peroxidation products is significantly reduced; the content of isolated double bonds increases compared to the effect of cadmium chloride. It was found that in vitro DEBA and its combined use with the drug loratadine also protects lipoproteins of blood serum and liver cytosol from peroxidative damage.

Conclusions. The results of the conducted studies indicate a high level of antioxidant activity of DEBA and its combination with loratadine *in vitro*, which indicates the feasibility of further studying their combined use *in vivo*.

EFFECT OF THE PHYTOEXTRACT FROM *BUPLEURUM AUREUM* AND ITS COMBINED USE WITH LORATADINE ON THE PARAMETERS OF LIPID PEROXIDATION UNDER THE ACTION OF CADMIUM CHLORIDE *IN VIVO*

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Introduction. This work is a continuation of the cycle of works on the pharmacological study of dry extract of *Bupleurum aureum* (DEBA), which contains phenolic compounds, flavonoids, saikosaponins, tannins, phytosterols, amino acids, micro- and macroelements and has long been used in folk medicine for the treatment of liver diseases, exhibits choleretic, anti-inflammatory, detoxifying, wound-healing effects. Among the substances that make up this extract, there is a significant number of various flavonoids, in particular, quercetin, the antioxidant effect of which is well known.

The aim of the work. This series of experiments investigated the effect of DEBA and its combined use with the drug loratadine on lipid peroxidation (LPO) indices in vivo under the influence of cadmium chloride.