than 20.000 mg / kg did not cause death of animals, did not cause macroscopic changes in the brain, internal organs, did not cause hypervolemic edema of internal organs, which is confirmed by the magnitudes of their mass coefficients. Thus, LE Plantago media L. are virtually nontoxic substances when injected in the most acceptable doses.

Conclusions. The study of acute toxicity has made it possible to establish that the lyophilic extracts based on infusion of leaves Plantago media L. belong to a class of practically non-toxic compounds. In one case. the mortality effects could not be achieved even with the injection of maximum doses - 40 ml / kg (more than 20.000 mg / kg of dry matter) with intragastric injection. There were no significant violations of the general condition and behavior of animals.

HIGHBUSH BLUEBERRY LEAVES EXTRACT AS A PROMISING AGENT FOR THE CORRECTION OF METABOLIC SYNDROME

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Introduction. Metabolic syndrome (MS) is a cluster of abnormalities combining insulin resistance (IR), obesity, hypertension, atherosclerotic hyperlipidemia and some other metabolic disorders. World Health Organization (WHO) first defined MS (or syndrome X, or insulin resistant syndrome) and published criteria in the 1998, several different definitions were proposed but all of them include glucose intolerance, IR, dyslipidemia and hypertension. Currently, WHO experts suggest MS to be a pandemic. One in four citizens in developed countries suffers from MS. Over the next 25 years, an increase in the rate of expected incidence is 50%. MS is strongly associated with diabetes mellitus type 2 (DM2) and cardiovascular diseases (CVD), which are the leading cause of mortality. In the Ukrainian traditional medicine shoots and leaves of the bilberry (*Vaccinium myrtillus*), which belongs to of the genus *Vaccinium* of the Heather family (*Ericaceae*), are widely used, as a hypoglycemic agent. Genus *Vaccinium* contains more than 200 species. We suppose that the medicinal raw materials of this genus species could have the similar pharmacological effects. Herbal raw materials of blueberries *Vaccinium uliginosum L.*, a wild plant species, and *Vaccinium corymbosum L.*, which is most widely cultivated, are of particular interest.

Aim. To establish the chemical composition of *V. corymbosum* leaves extract and reveal their bioactivity as potential remedies for the management of MS.

Materials and methods. The object of the study was extract obtained with 50% ethanol from the leaves of *Vaccinium corymbosum L.*. Quantification of major phytochemicals was performed using HPLC-DAD-MS analysis. The hypoglycemic activity of the dry extract from the leaves of tall blueberry was studied in adult mature inbred rats.

Results and discussion. The comparison of the content of hydroxycinnamic acids derivatives, flavonoids and total phenolics was carried using the simple chemical methods. Keeping animals for 6 weeks on diet enriched with fructose and saturated animal fats led to the significant hyperglycemia, which accompanied by hyperinsulinemia, indicated the IR state development. Administration of the extract led to a significant decrease in the level of glucose, insulin and TAG in blood serum.

Conclusion. Therefore, the study of chemical composition and pharmacological activity of the extract from the leaves of *Vaccinium corymbosum L.* has proved the prospect of creating a new drug for correcting of metabolic syndrome.