

THICK EXTRACT OF AMBROSIA ARTEMISIIFOLIA – NEW SUBSTANCE FOR CREATION OF MEDICINES

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Medicinal plant raw material (MPRM) through rather complicated chemical composition and variety of biologically active substances it contains, is widely used in the pharmaceutical industry. Medicines, for which the active ingredient is MPRM-substances, take a certain share among the range of medicines, which industrial manufacturer of medicine proposes to the pharmaceutical market of Ukraine. Extraction of new plant substances from medicinal plant raw materials and the development of medicines based on them do not lose actuality.

Medicinal plant raw material of *Ambrosia artemisiifolia* (*Ambrosia artemisiifolia* L.) has attracted attention as the object of the study, because spectrum of theoretically known activity allows to determine modernity of its using as possible. It is known that medicinal plant raw material, which was given, contains in its structure chemical compounds such as sesquiterpene lactones, coumarins, essential oils, phenolcarboxylic acids, flavonoids, triterpenoids, fatty acids and mineral elements that are responsible for its pharmacological activity.

The thick extract of *Ambrosia artemisiifolia* was obtained by the department of chemistry of natural compounds. To obtain a thick extract, medicinal plant raw material of *Ambrosia artemisiifolia* was extracted with 40% ethanol by the method of fractional maceration exhaustively. Extraction was carried out with aqueous ethanol at a ratio of 1:30 for 5 days.

An important step was to study the chemical composition of the extract. It was revealed that the thick extract contains terpenes, phenolic compounds, in particular flavonoids, hydroxycinnamic and phenolcarboxylic acids, that opens the possibility of introducing them to the medicines. The most important characteristics of a new medicine is its efficacy and safety, and therefore the definition of acute toxicity in experiment on male rats weighing 205-240 g and female rats weighing 155-175 g by intragastric introduction was planned to carry out. It was observed for rats state for two weeks. Changes in appearance, state of the skin and mucous membranes, the dynamics of body weight, behavior were not noticed. The obtained results allow to include thick extract by the Hodge H.C., Sterner J.H. classification to practically non-toxic substances (V class toxicity, $5000 < LD_{50} < 15,000$ mg / kg). It is known from literature sources about the anti-inflammatory, wound healing, cytotoxic, disinfectant actions of *Ambrosia artemisiifolia* herb, so it is important to investigate the said pharmacological activity with a view to aptly using in the pharmacotherapy of diseases which have polyetiologic genesis. Information about the use of medicinal plant raw material of *Ambrosia artemisiifolia* and identified components biologically active substances of thick extract make it possible to consider it as an effective substance for the development of medicines in order to correct inflammatory conditions in the dental practice.