

UV light (366 nm and 254 nm) and in daylight. When viewed in daylight, the plate was previously kept in ammonia vapors to enhance the color of the chromatographic zones of the detected substances.

Results and discussion. Among the 20 phenolic compounds of immortelle, isosalipuroside or isohelichrizin are dominant; from the group of flavanones were observed: naringenin, salipurposide or helichrizin, glucopyranoside naringenin; flavones: apigenin, lutenolin and their glucosides; flavonols: trimethoxyflavone, kaempferol, quercetin glucosides. Stems mainly contain hydroxycinnamic acids (caffeic, chlorogenic acids and others).

Conclusions. Immortelle variety «Zolotisty» is characterized by high level of phenolic derivatives and may be recommended for production of phytomedicines.

PHARMACOGNOSY RESEARCH OF RAW MATERIALS OF DECORATIVE PLANTS

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Introduction. Decorative plants, cultural and wild, used in gardening, design of gardens, parks, to decorate homes and public buildings. Decorative plants differ in a beautiful form and a variety of coloring flowers, leaves and fruits. Zamiokulkas (Latin *Zamioculcas*) is a unpretentious plant, tolerates low air humidity and partial darkening, does not impose special requirements on the soil. Since *Zamioculcas* is used in traditional medicine, it is a promising raw material for pharmacognostic research. Hyacinth (lat. *Hyacinthus orientalis*) is a genus of bulbous perennials from the family Asparagus. The plant is widely cultivated everywhere for decorative purposes and does not require difficult to create conditions for growth. Due to the multiplicity of varieties and availability, hyacinth is a promising plant for pharmacognostic analysis and further use in pharmacy.

Aim. Investigate the morphological and anatomical structure of raw material *Zamioculcas zamiifolias* and Pink Pearl, Carnegie, Delft Blue varieties of hyacinth as promising types of raw materials of ornamental plants.

Materials and methods.

Considering the chemical composition, pharmacological action, use in traditional medicine, bulbs, leaves, stems, flowers of hyacinth of Pink Pearl, Carnegie, Delft Blue varieties and underground limbs and *Zamioculcas zamiifolias* leaves were chosen as raw materials.

Studies were conducted using modern methods of analysis of medicinal plant materials. The chemical composition of essential oil of hyacinth is rather complicated. It identifies more than 60 components.

Oxygen-containing compounds predominate. Among them, cinnamic, benzyl, phenylethyl and heptyl alcohols and the corresponding aldehydes, as well as a number of esters, eugenol, methyugenol and dimethylhydroquinone are found. Hyacinth essential oil has antiseptic, bactericidal, anti-inflammatory, balsamic, sedative and astringent properties.

Infusions from the leaves *Zamioculcas* in traditional medicine used for ear pain, in the treatment diseases of the musculoskeletal system. Thus, traditional medicine recommends treating the disease of bones and joints with infusions from plant leaves. Due to its toxicity, in this case medicinal raw materials can be used only by external means.

Results and discussion. A study of the morphological structure of the bulbs, leaves, stems, hyacinth flowers of the Pink Pearl, Carnegie, Delft Blue varieties and of the underground limbs and leaves of *Zamioculcas zamiifolias*.

The main diagnostic features are highlighted. These include leaf type, venation, features of the floral arrow.

A study of the anatomical structure of the bulbs, leaves, stems, oriental hyacinth flowers, which have been investigated, and underground limbs and leaves of *Zamioculcas zamiifolias* has been studied.

The main diagnostic features are highlighted: leaf and stem structure type, stomata type.

Conclusions. The results of studying the morphological and anatomical structure of *Zamiokulkas zamiifolias* raw materials and *Hyacinth orientalis* varieties were the first stage of research of promising types of medicinal plant raw materials of ornamental plants.

COMPARATIVE FITOCHEMICAL ANALYSIS OF HERB AND TINCTURE OF MOTHERWORT OF DIFFERENT MANUFACTURERS

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Introduction. The herb of motherwort (*Leonurus cardiaca* L.) of the Lamiaceae family is used in the official medicine of many countries as a classical sedative. The pharmacy market of Ukraine through pharmacy networks sells herb of motherwort in packaged form and in a form of tincture, which is manufactured by several enterprises.

Aim. The aim of the study was the comparative phytochemical analysis of herb and tincture of motherwort of various domestic manufacturers.

Materials and methods. The determination of the content of impurities, the mass loss during drying, the total ash in samples of the herb of motherwort were carried out gravimetrically. For tinctures, a comparative organoleptic analysis was performed. The determination of the content of hydroxycinnamic acids, the sum of phenolic compounds in the medical plant raw material and infusions was carried out by direct spectrophotometry at $\lambda = 325$ nm and 270 nm, respectively. The content of flavonoids was determined by the method of differential spectrophotometry at $\lambda = 405$ nm.

Result and discussion. As a result of the research, it was found that the herb of motherwort produced by PrJSC «Liktavy» contains 2.82% of the sum of phenolic compounds in terms of gallic acid, 2.48% of hydroxycinnamic acids in terms of chlorogenic acid and 3.37% of flavonoids. The herb of motherwort produced by PrJSC Pharmaceutical company «Viola» contains 3.09% of the sum of phenolic compounds, 3.42% of hydroxycholic acids and 4.00% of flavonoids. In the study of the quality of the herb of motherwort, purchased on the Kharkiv market, it was found that it contains 2.19% of the sum of phenolic compounds, 3.37% of hydroxycholic acids and 3.59% of flavonoids. It is determined that the investigated raw material of PrJSC Pharmaceutical company «Viola» contains 2.0% of extraneous impurities, the loss in mass at drying is 7.89%, the total ash content is 8.72%. In raw materials produced by PrJSC «Liktavy» mass loss during drying is 5.86%, total ash content is 9.36%. In raw materials purchased on the market, the data are: 22.0% of extraneous impurities, 7.32% of loss in mass at drying, 9.90% of total ash content. At research of tincture of motherwort produced by PrJSC «Phytopharm» it was revealed that the content of the amount of phenolic compounds is 0.30%, the content of hydrocoric acids is 0.29%, the content of flavonoids is 0.39%. In the production of LLC Zhytomyr Pharmaceutical Company the content of the amount of phenolic compounds is 0.30%, the content of hydroxycinnamic acids is 0.35%, the content of flavonoids is 0.55%.

Conclusions. As a result of the research, it was found that herb of motherwort of two Ukrainian producers and herb of motherwort bought on the market is close to the content of flavonoids, but different in content of the amount of phenolic compounds and hydroxycinnamic acids. The sample from the market does not meet the requirements for the content of extraneous impurities, which affects the quality of raw materials. It also contains the smallest number of the amount of phenolic compounds. The tinctures of two domestic producers are close to the amount of phenolic compounds and hydroxycholic acids, but somewhat different in terms of the content of flavonoids.