

THE PHARMACOGNOSTIC STUDY OF THE HERB *PLANTAGO MAJOR* PURPLE VARIETY

Gontova T., Kouritii A.

Національний фармацевтичний університет, м. Харків, Україна

Introduction. Among the medicinal plants popular in medicine, species of the genus *Plantago* L. can be distinguished. Species of the genus *Plantago* L. are widely distributed in nature, with ecological diversity. In folk and official medicine, plantains are used as anti-inflammatory, expectorant, wound healing, hemostatic and antiulcer agents. In recent years, considerable attention has been paid to species that are easily cultivated, to varieties resistant to various diseases. It should be noted that among the common species of the genus plantain, the *Plantago major* is especially prominent. This species is widely distributed; modern varieties have been developed on its basis, which are distinguished by a variety of decorative leaves and inflorescences. Plantain varieties are easily cultivated on poor soils and can serve as raw materials for the pharmaceutical production of herbal preparations. For the pharmacognostic study, we chose a *Plantago major* of the Purple variety.

The purpose of the work is the pharmacognostic study of *Plantago major* of the Purple variety.

Research methods. Macro- and microscopic studies of raw materials were carried out using a magnifying glass and a microscope. The qualitative composition of raw materials was studied using chemical qualitative reactions, paper and thin layer chromatography methods [1]. Quantitative determination of the content of biologically active substances was carried out by spectrophotometry, gas chromatography.

Main results. Complexes of polysaccharides and pectin substances were obtained from the herb of a plantain variety Purple. The component composition of the polysaccharide complex is represented by glucose, galactose, fructose, arabinose, rhamnose, galacturonic and glucuronic acids. Free amino acids, namely alanine, glycine, proline, valine, treonine, lysine, serine were first identified in grass. In the hydrolyzate, 15 amino acids were identified, and their content was determined by gas chromatography. The total number of amino acids was 9,38 %. Phenolic compounds are represented by chlorogenic, neochlorogenic, ferulic acids, quercetin, kaempfeol, rutin, hyperoside, luteolin. The amount of hydroxycinnamic acids in the herb was 3.05%, flavonoids 0.87%, anthocyanins 1.32%, and polyphenolic substances 2.02%.

The identified macro- and microscopic features of the structure of the raw material *Plantago major* of the Purple variety will be used in standardization.

Conclusions. A pharmacognostic study of *Plantago major* of the Purple variety was conducted for the first time. The obtained research results will be used in further work

References.

1. Державна Фармакопея України / ДП «Український науковий фармакопейний центр якості лікарських засобів». 2-ге вид. Харків : ДП «Український науковий фармакопейний центр якості лікарських засобів», 2015. Т. 1. 1110 с. 135.