

CHROMATOGRAPHIC RESEARCH OF *DIGITALIS PURPUREA* AND *DIGITALIS LANATA* FLOWERS

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Introduction. *Digitalis purpurea* and *Digitalis lanata* is pharmacopoeial plant that has been known as a source of cardiac glycosides a long time, of these leaves and herb are obtained cardiotonic drugs. It know that plants contain the choline, amino acids, steroid saponins and flavonoids.

The aim of this research was chromatographic study of phenolic compounds of *Digitalis purpurea* flowers and *Digitalis lanata* flowers

Materials and methods. The objects of the study were dried flowers of these species of family *Digitalis*, that have been harvested in summer 2016.

The analysis was conducted by thin layer chromatography and paper chromatography methods. Extracts was obtained by 90% ethanol. The chromatographic conditions: chromatography plates "Silufol", chromatographic paper "Filtrac №12", solvent systems – for aglycones: toluene – ether (1 : 1/saturated with 10% acetic acid); for glycosides: ethyl acetate – formic acid – glacial acetic acid – water (100 : 11 : 11 : 26); ethyl acetate – formic acid – water (10 : 2 : 3); chloroform – methanol – water (64 : 50 : 10) and 15% acetic acid. Chromatograms were studied in daylight and in UV-light. Substances have been identified by fluorescence characteristics in UV-light after processing, and by the R_f value and coloration with chromogenic reagents (UV-365 nm (without chemical treatment; for natural products – polyethylene glycol reagent; 10 % KOH in ethanol; anisaldehyde – sulphuric acid reagent; Kedde reagent: 5 ml of 3 % 3,5-dinitrobenzoic acid in ethanol, that prepared freshly with mixed of 5 ml of 2 M NaOH).

Results and discussion. In the result of the chromatographic study of extracts of *Digitalis purpurea* flowers and *Digitalis lanata* flowers had been found 8 and 12 phenolic compounds respectively. The caffeic acid and the luteolin-7-glucoside; after acid hydrolysis – luteolin, diosmetin, kaempferol and quercetin have been identified.

In flowers of two species iridoids, steroid saponins, cardiac glycosides, phenolcarbonic and hydroxycinnamic acid have been identified by chromatographic method.

Conclusions. It was found, that flower of these species can be considered as a sources of flavonoids, saponins steroid etc. Our results indicate that further in-depth study of the *Digitalis purpurea* flowers and *Digitalis lanata* flowers as a source of biologically active substances can be considered shows potential for the pharmacy.