

PHYTOCHEMICAL OF STUDY OF ERIGERON ANNUELLE

Prikolota D.I., Kovalev S.V.

The National University of Pharmacy, Kharkiv, Ukraine

pricolota.pchelka@bk.ru

In spite of the fact that medications of synthetic origin are occupied by considerable positions in the assortment of pharmacy networks, interest to phytoterapy continues to grow. Therefore search of new unexplored plants is always remains an actual task for researchers.

Such raw material is *Erigeron annuelle* (Annual Fleabane L. (Pers.) from Aster family (Asteraceae). This plant in a wild type meets in South America, on territory of Ukraine it is brought as weed.

In Ukraine *Erigeron annuelle* it is possible to meet in Western Ukraine and in the Kharkiv area as well. In literary sources practically absent information about chemical composition of this plant, that appeared base for its subsequent research.

The object of our researches was the herb of *Erigeron annuelle* collected at flowering time in summer in 2014 in the Kharkiv area.

After previous phytochemical researches were found out the following classes biologically active compounds: amino acids, organic and hydroxycinnamic acids, coumarins, flavonoids, tannins compounds, saponins, alkaloids, free and compound sugars and others derivatives.

By extraction of raw material by solution of hexane in the Soxhlet apparattus, got lipophilic fraction, by a chromatography method in the layer of sorbent found out the presence of carotinoids, chlorophylls, and tocopherolls.

By the HPLC was defined quality and quantitative content of fat acids. An amount of fat acids was 16 among which the unsaturated fat acids prevail in quantitative content.

By atomic-emission spectrophotometry investigation quality and quantitative composition of macro- and microelements, were defermined. It was established the presence of is elements presence was as a result set 15 elements. In the herb of *Erigeron annuelle* outside possibility determination by a method atomic-emission spectrophotometrys cobalt ($<0,03$), cadmium ($<0,01$), arsen ($<0,01$), mercury ($<0,01$), lead ($<0,03$), nickel ($<0,03$) and molybdenum ($<0,03$).

These researches defined as base for subsequent research of plant of sort of *Erigeron annuelle* of Annual Fleabane (L.) of monogynopaedium of Aster family (Asteraceae), which is a perspective source for a reception on his basis of new medications.

Determined by HPLC quantitative content of organic acids in the herb *Erigeron annuelle* Among the dominant prevail following acids: oxalic - 174.65 mg / kg, syrengic- 184.62 mg / kg, vanillic - 213.01 mg / kg, malonic - 499.65 mg / kg, succinic - 539.20 mg / kg, citric - 1248.57 mg / kg, levulinic - 1682.13 mg / kg, malic- 1830.85 mg / kg.

Determined by HPLC content of volatile components in the flowers and herb *Erigeron annuelle* The flowers contains 70 components, herb - 62 components.