PHARMACOGNOSTIC STUDY OF ARTICHOKE HEADS

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Introduction. Remedies of plant origin, unlike the synthetic ones, have much less side effects on the human body. The plant material for their production can also be edible plants, e.g., artichokes (*Cynara*) from the *Asteraceae* family. These are perennial herbs up to 1.5 m highwhich are distributed in the wild in the Mediterranean countries, Asia, Central and Northern America.

There are mainly two species which are cultivated – globe artichoke (*Cynara scolymus*) and artichoke thistle, or cardoon (*Cynara cardunculus*). The globe artichoke leaves are included into the State Pharmacopoeia of Ukraine. Flower heads are used as edible parts of the former one, and leaf petioles – of the latter. The globe artichoke leaves and herb (*Cynarae folium*, *Cynarae herba*) are the raw material for foreign and domestically produced remedies which are used in the hepatobiliary system function disorders, gastric and duodenal ulcers, and as a cholagogue. «Cynarix» (Austria), «Chophytol» (France), «Bilicure» (Germany), «Artibel» (Belgium), «Artichoke extract» (Ukraine) can be examples of such drugs.

The **aim** of our research was the pharmacognostic study of globe artichoke (*Cynara scolymus*) flower heads.

Materials and Methods. The plant material samples were collected in the summer of 2014 in Kharkiv region. Quality reactions and paper chromatography were used for the biologically active compounds' identification. The quantitative analysis of hydroxycinnamic acids was carried out spectrophotometrically using the Mecasys Optizen POP spectrophotometer at the wavelength 315 nm in a cuvette with 10 mm thick layer. Some technological parameters and numerical indices of the plant material were also determined. The methods described in the State Pharmacopoeia of Ukraine and USSR Pharmacopoeia XI ed. were used.

Results. Polysaccharides (reaction with ethanol), flavonoids (cyanidin test, reaction with sodium hydroxide, aluminum chloride, ferric chloride solutions etc.), hydroxycinnamic acids (paper chromatography), and tannins (tests with gelatin, ferric-ammonia sulphate, alkaloids etc.) were identified in the plant material. The quantitative content of polysaccharides was hydroxycinnamic acids – 1.16%, total ash content – 0.1424%, the plant material grinding degree – 1.5-2.00 mm; extragent absorbance coefficients: 96% ethanol – 4.1950, 70% ethanol – 4.1987, 40% ethanol – 4.9819, 30% – 5.4898; water – 5.3786.

Conclusion. The results obtained can be used for the plant material grown in Ukraine standardization.