

ANATOMICAL AND HISTOCHEMICAL RESEARCH OF RADICAL ROSETTE, RHIZOMES WITH ROOTS

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In modern medicine, one of the main sources of receiving treatment and preventive medicines are medicinal plants. They are used both independently and receive many valuable therapeutic drugs, that are include more than 25 pharmacological groups medicines and for the most part of them there is no equivalent synthetic analogues.

Geum aleppicum Jacq. - Aleppo avens belongs to the family Rosaceae subfamily Rosoideae - grows throughout Ukraine in littered places, in woods, in thickets. Previous chemical investigations of *G. aleppicum* demonstrated the presence of polyphenols, amino acids, fatty acids and other compounds in raw materials, which is inherent antimicrobial, anti-inflammatory and reparative activity.

The aim of this research was to investigate the anatomical and histochemical structure of radical rosette, rhizomes with roots *Geum aleppicum* for identification of medical plants.

For microscopic investigation were used leaves from radical rosette, rhizomes with root, which were collected during 2013-2014 years in the outskirt of Kharkiv.

Aleppo avens is a vigorous herb with thick, short rhizome, radical rosette leaves are long-petiolate, lyre-shaped, pinnately sected or intermittently pinnately parted, lateral parts 3-6(8) couples, they are wedge-shaped, ovate and loped.

For leaves species-specific anatomical features include trichomes availability and their location; size, number of conductive bunches in the central vein; shape and placement of crystals of calcium oxalate in mesophyll. For root species-specific anatomical features include index of cork rough, endodermis availability, vessels with simple and spiral perforation; location and type of crystalline inclusions, shape and localization of starch grains, presence and density of pigmented idioblasts with red-brown secret.

All things consider, on the basis of morpho-anatomical and histochemical structure of radical rosette, rhizomes with roots *Geum aleppicum* were established diagnostic features for the whole species. The obtained data shows the possibility of usage rhizomes with root *Geum aleppicum* as a raw with tannins. Research of anatomical and histochemical structure of aboveground and underground parts of *G. aleppicum* with the identification of diagnostic features may be need during the development of the relevant sections of quality control methods.