COMPARATIVE PHARMACOGNOSTICAL STUDIES OF SPECIES IN GENUS VERONICA

Milian I.I., Rakieiev P.V., Sira L.M.
I.Ya. Horbachevsky Ternopil State Medical University, Ternopil, Ukraine
The National University of Pharmacy, Kharkiv, Ukraine
ivan.milyan@mail.ru

The aim of the research is the morphological and anatomical analysis and chemosystemetic of common Veronica group in Ukraine, species identification, perspective, medical, standardization of raw materials.

Materials and methods. The samples of grass Veronica officinalis (V. officinalis) and Veronica chamaedrys (V. chamaedrys). Description of morphological features, anatomical and histochemical determination were carried out due to the appropriate methods.

The obtained results. Due to the APG-classification, genus Veronica is assigned to the Plantaginaceae family. Earlier, it included the family Scrophularia (Scrophulariaceae). The problem of kind systematization arises because of large number of features, the lack of clear boundaries with neighboring families, the proximity of certain groups of species and their release into independent genera. When the differences among species genus Veronica investigates, then we investigate various phytochemical characteristics, analyzes of morphological and anatomical structures as additional features for streamlining and standardization kind of possible medicinal plant. Flora of genus Veronica is represented with 47 species in Ukraine. Widespread spring and summer honey herbs are Veronica officinalis (V. officinalis) and Veronica chamaedrys (V. chamaedrys). They are included in the Pharmacopoeia of some countries of Western Europe. Grass contains glycosides aukubin and veronicin, flavonoids, phenolcarbonic acids, iridoid, saponins, essential oil, tannins and bitter substances, vitamin C and so on. Medication is used as an expectorant and has anti-inflammatory, hemostatic, fungicidal effect, stimulate cardiac function, is used for treatmant of bladder, kidney, stomach, adrenal glands and skin. The external distinguishing features include: V. officinalis - stems uniformly rough-pubescent lanuginous; leaves obovate or elliptic, rough, crenate; thick brush placed in the bosom of one of opposite leaves; pedicels shorter bracts and calyx has narrow shape; stigmas is complete. Veronica chamaedrys - stems with two opposite rows of hairs; Leaves are rounded-ovate, blunt, crenate and serate; bloom without many flowers. The stems and leaves are slightly different in types of quantitative and qualitative anatomical features. The structure stems are fasciculated. Common features are mesomorphic anatomical structure of leaves: a thin plate, medium size epidermal cells with moderately thick and thin outer side of walls, dorsoventral moderately layered, loose mesophillous with an average rate of palisade, wide palisade cells that accumulate phenolic compounds.

Conclusions. The results can be used for further correction of cladograms, dendrograms and for standardization of medical raw materials.