INTERNATIONAL E-CONFERENCE CONTEMPORARY PHARMACY: ISSUES, CHALLENGES AND EXPECTATIONS

23rd OF OCTOBER 2020, KAUNAS

ABSTRACT BOOK

2020 autumn

October 23rd, 2020

Kaunas, Lithuania

The international conference "CONTEMPORARY PHARMACY: ISSUES, CHALLENGES AND EXPECTATION. 2020 AUTUMN" is organized by Lithuanian University of Health Sciences, Faculty of Pharmacy, Department of Drug Technology and Social Pharmacy.

ISBN 978-9955-15-669-7

2020, Kaunas

Language of abstracts was not corrected.

The chemotaxonomic study of *Salvia* L. genus of Ukrainian flora

Oleh Koshovyi, Alla Kovalyova, Tetiana Ilina, Olga Goryacha*
Department of Pharmacognosy, National University of Pharmacy; 53-Pushkinska str., Kharkiv, 61002, Ukraine
**Corresponding author's e-mail: helgagnosy@gmail.com*

Introduction: 20 *Salvia* species growing and cultivated in Ukraine were studied using chemotaxonomic method.
Materials and methods: *Salvia* species of Ukrainian flora.
Results: as the result of the present chemotaxonomic study, 4 clusters were established differing by the presence of phenolic compounds and terpenoids. The first cluster includes *S. officinalis* L., *S.grandiflora* Etl., *S. verbenaca* L., the second one has *S. pratensis* L., *S. cernua*, *S. stepposa* Schost., *S. Sibthorpii* Sm., *S. illuminata* Klok., *S. nemorosa* L., *S. nutans* L. The third cluster is represented by *S. glutinosa* L., *S. nemorosa* L., *S. austriaca* Jacq., *S. verticillata* L., the fourth one includes *S. aethiopis* L., *S. sylvestris* L., *S. pendula* Besser. The main group of taxa demonstrating the greatest affinity (up to 33 – 46%) to the studied continuum was identified, which includes 9 species: *S. pratensis* L., *S. stepposa* Schost., *S. Sibthorpii* Sm., *S. illuminata* Klok., *S. nemorosa* L., *S. austriaca* Jacq., *S. verticillata* L., *S. sylvestris* L. and *S. cernua* Czern. ex Des.-Shost. These species represent a generalized characteristic of the chemical profile of *Salvia* L. genus. The following compounds are the main phytochemicals of taxa: terpenoids *p*-cymene, *p*-cymen-8-ol, *cis*-2-hexen-1-ol acetate, α-pinene, 1,8-cineole, limonene, β-thujone, borneol, camphor; *cis*-neophytadiene; and phenolic compounds, namely caffeic acid and its 12 derivatives, rosmarinic acid, luteolin-7-O-glycoside, hispidulin, cirsimaritin. Species of the first and fourth clusters showed a high degree of specificity and low affinity to the continuum. Terpenoids *trans*-linalool oxide, linalyl acetate, myrtenol, caryophyllene, viridiflorol, β-caryophyllene are highly informative and characteristic for *Salvia* species of Ukrainian flora. Established relation degrees between *S. cernua*, *S. pendula* and *S. nutans* at the level of 13 – 33% reject assumptions about identity of these species [1].
Conclusions: The main group of taxa characterizing the chemical profile of *Salvia* L. genus was established. The independence of some species was demonstrated.

References

1. Koshovyi O., Raal A., Kovaleva A., Myha M., Ilina T., Borodina N., Komissarenko A. The phytochemical and chemotaxonomic study of Salvia spp. growing in Ukraine. *Journal of Applied Biology & Biotechnology.* 2020;8(03):29-36.