

3rd Symposium of Young Researchers on Pharmacognosy



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BOOK OF ABSTRACTS



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Phytochemical investigation of *Carex praecox* and *C. morrowii*

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Plant derived natural products have always played a key role in drug development [1]. Therefore, it is of crucial importance to isolate new bioactive plant special metabolites. Species belonging to the Cyperaceae family occur worldwide, also in the Carpathian Basin, and accumulate a variety of metabolites, among them biologically active phenolic compounds (flavonoids, lignans, stilbenes). *Carex* is the largest genus of the family ($n=2000$) [2].

The aim of our work is the phytochemical and pharmacological investigation of *Carex* species occurring in Hungary. Based on the results of the antibacterial screening study involving 26 Cyperaceae species, *C. praecox* was chosen for further preparative work. We previously processed the chloroformic fraction of the plant and isolated 14 compounds. Now, we report the investigation of the ethyl acetate-soluble fraction of *C. praecox* methanolic extract. By using a combination of different chromatographic methods, eight compounds, namely vanillic acid, two flavonoids (tricin and quercetin), a chalcone derivative (cilicione-B), three stilbenes (resveratrol, *cis*- and *trans*- ϵ -viniferin) and a new lignan (carexosin C) were isolated. The structures of the isolated compounds were determined by a combination of 1D and 2D NMR, and MS measurements.

The phytochemical investigation of *C. morrowii* has also been started. Dried and ground leaves and roots of the plant were separately extracted with methanol and after evaporation, each of the extracts were subjected to solvent-solvent partition with *n*-hexane, chloroform and ethyl acetate.

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References

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