

UDK 615

YU ISSN 004-1963

ARHIV ZA FARMACIJU

Godina 56

Broj 5

Beograd, 2006.

ČASOPIS FARMACEUTSKOG DRUŠTVA SRBIJE

SPECIJALNI BROJ

IV KONGRES FARMACEUTA SRBIJE
Sa međunarodnim učešćem

Savremena farmacija -
unapređenje zdravlja i kvaliteta života

BEOGRAD, Sava Centar
28. novembar - 2. decembar 2006 godine

5/2006

ARH. FARM.

Godina 56

Br. 5

Strana 639- 1021

Beograd

SASTAV I ANTIMIKROBNA AKTIVNOST ETARSKOG ULJA *Chaerophyllum aureum* L. (APIACEAE)

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Rod *Chaerophyllum* je široko rasprostranjen u Evropi, Aziji i Severnoj Americi. U flori Evrope, zastupljen je sa 11, a u flori Srbije sa 6 vrsta (1). Predstavnik ovog roda, *Chaerophyllum aureum* L. je višegodišnja, zeljasta biljka. Cilj našeg rada bio je ispitivanje količine, sastava i antimikrobne aktivnosti etarskog ulja dobijenog destilacijom vodenom parom iz herbe i plodova *C. aureum*.

Biljni materijal je prikupljen sa dva lokaliteta na teritoriji Srbije: Suva planina, juni 2005 i Kopaonik, avgust 2005.

Količina etarskog ulja je od 0.15 % (v/m) (herba) do 0.3 % (v/m) (plodovi). U svim etarskim uljima dominantni su monoterpenski ugljovodoni (od 50.8 do 81.8 %). Kao glavne komponente su određene: sabinen (od 18.5 do 31.6 %), p-cimen (od 7.9 do 25.4 %) i limonen (od 1.9 do 10.9 %).

Antimikrobna aktivnost testirana je na šest sojeva bakterija i dva soja *Candida albicans*, koristeći agar difuzionu metodu (2). Najbolja aktivnost ispitivanih etarskih ulja ispoljena je na *Staphylococcus epidermidis* ATCC 12228, *Micrococcus luteus* ATCC 10240 i *Staphylococcus aureus* ATCC 25923.

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COMPOSITION AND ANTIMICROBIAL ACTIVITY OF *Chaerophyllum aureum* L. (APIACEAE) ESSENTIAL OIL

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Genus *Chaerophyllum* is widespread in Europe, Asia and North America. In the flora of Europe 11 species occur, while in the flora of Serbia 6 species are present (1). One representative of this genus is *Chaerophyllum aureum* L., a perennial herb.

The aim of our work was to investigate chemical composition and antimicrobial activity of essential oil obtained by hydrodistillation from aerial parts and fruits of *C. aureum*.

Plant material was collected from two localities, Suva planina in June 2005 and Kopaonik in August 2005. The essential oil was isolated from aerial parts and from fruits separately.

The oil content was 0.15% (v/w) in aerial parts and 0.3 % (v/w) in fruits. In all samples, the most dominant were monoterpene hydrocarbons (50.8 -81.8 %). The main compounds were found to be sabinene (18.5-31.6 %), ρ -cymene (7.9-25.4 %) and limonene (1.9-10.9 %).

The antimicrobial activity was tested on six bacterial strains and two strains of *Candida albicans*, using agar diffusion method (2). The best activity of tested essential oils was detected against *Staphylococcus epidermidis* ATCC 12228, *Micrococcus luteus* ATCC 10240 and *Staphylococcus aureus* ATCC 25923.