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Volatile Compounds and Cytotoxic Effects of *Lavandulae Aetheroleum*

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Lavender flowers as well as essential oil are often used as herbal remedy for nervous disturbance, anxiety, mild depression and aromatherapy[1]. GC/MS method was used for identification of volatile compounds in *Lavandula aetheroleum*. Cytotoxic activity was determined using the Brine shrimp lethality assay (BSLA)[2,3]. Meyer's and Clarkson's scales were used to categorize the essential oil cytotoxicity based on the obtained LC50 values. GC/MS analyses resulted in identification of 26 components, representing 95.35% of the essential oil. Dominant components were monoterpenes linalool acetate (18.88%), bornyl acetat (7.28%), terpinen-4-ol (6.00%), *β*-ocymene (4.27%), myrcene (3.16%), borneol (3.07%), *α*-terpineol (2.27%), geranyl acetate (2.14%), lavandulol (2.13%) and linalool (1.18%) and sesquiterpenes caryophyllene E (4.88%) and β-farnesene (1.10%). *Lavandulae aetheroleum* showed cytotoxicity after 24h with LC50 value of 58.08 μg/mL. According to the Meyer's[2] and Clarkson's scale[3], this essential oil showed toxic and highly toxic activity, respectively. Additional examinations should be done in order to established the relationship between the determined chemical composition and the cytotoxic activity.

Keywords: Lavandula officinalis, essential oil, volatile components, cytotoxicity

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