Antioxidative and Antispasmodic Activity of the Essential Oil of *Cyclotrichium Niveum* (Boiss.) Manden. Et Scheng.

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*Cyclotrichium niveum* (lamiaceae) is an annual herb that is used in the traditional medicine of Turkey for treating flu and muscle pain for stomach ache [1]. The present study was designed to examine in vitro antispasmodic and antioxidant activity of the essential oil of *Cyclotrichium niveum* plant. The chemical composition of a hydrodistilled essential oil of *Cyclotrichium niveum* (CN) was analysed by a GS/MS systems. A total 32 constituent were identified. The identified components constituted 94.82 % of the oil, major components were pulegone (76.84 %), followed by izomentone (6.65 %) and isopulegone (3.01 %).

Antioxidant activity was investigated with two different methods, Firstly, it was used 2,2 diphenyl 1-1 picryhydrazid (DPPH) radical scavenging method then β-carotene–linoleic acid assay method [2]. The free radical scavenging activity of CN essential oil was observed at high concentration of extract (IC<sub>50</sub>=1750 μg/ml). In case of linoleic acid system, oxidation of the linoleic acid was inhibited by the CN essential oil and it showed 31% inhibition.

The Antispasmodic activity of CN essential oil was assessed on contraction of isolated rabbit bladder and rat ileum [3]. These organs were hanged up on isolated organ bath, which has a gas mixture composed of 95 % O<sub>2</sub> and 5 % CO<sub>2</sub> and also nutritive solutions and the tissues were brought into balance for one hour. Rabbit bladder detrusor muscle was contracted by carbachol (10<sup>-4</sup> M), and CN essential oil was applied. In this procedure of the relaxative effects of the essential oil were investigated. It was observed that 1.0 mg of essential oil caused some relaxation. This relaxation was more with 5.0 mg dose. Finally, free relaxation was reached with the dose of 10.0 mg of essential oil. In rat ileum, direct CN essential oil effect was investigated on spontaneous contractions; then, increasing doses of essential oil of CN were applied to the tissues. It was observed that, when the dose of CN essential oil was increased in spontaneous contraction, inhibition effect was increased.

Kaynaklar: