

عنوان مقاله:

Antioxidant properties of hydro-alcoholic extract and extract of nepeta crispa in Lorestan province

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Introduction: Antioxidants protect body against the oxidative stress caused by free radicals. This study aims at comparing the antioxidant properties of hydro-alcoholic extract and extract of *Nepeta crispa* (from its shoot part). **Methods:** The study was carried out in Lorestan University of Medical Sciences in ۲۰۱۲. Both hydro-alcoholic extract and essence of *Nepeta crispa* were prepared and antioxidant properties of samples were assessed using different methods. The ability to inhibit free radicals production was measured through ۲, ۲-diphenyl-۱-picrylhydrazyl (DPPH) method. Total antioxidant capacity was measured using Phosphomolybdate Method. Likewise, phenol and flavonoid compounds of samples were measured using folin-ciocalteu Zishen method. **Results:** The results showed that the total antioxidant capacity of hydro-alcoholic extract and essence of *Nepeta crispa* were equal to ۰.۲۳ ± ۰.۱۲ and ۰.۸۲ ± ۰.۴۰ Nmol ascorbic acid per gram extract or essence. The phenol content of hydro-alcoholic extract and essence of *Nepeta crispa* were ۲۵۴.۶۳ ± ۱۵.۷۵ and ۶.۹۴ ± ۱.۳۷ mg gallic acid per gram extract or essence, respectively. Flavonoid content of hydro-alcoholic extract and essence of *Nepeta crispa* were equal to ۵.۵۳ ± ۰.۳۴ and ۰.۳۶ ± ۰.۰۶ mg quercetin per gram extract or essence, respectively. IC_{۵۰} value (concentration that will inhibit ۵۰% of free radicals production), hydro-alcoholic extract, essence of plant and Butylated hydroxytoluene (BHT), as positive control, were equal to ۲.۰۹ ± ۰.۱۱ , ۶.۰۵ , and ۳.۸۸ ± ۱ $\mu\text{g/ml}$, respectively. **Conclusion:** The results showed that the hydro-alcoholic extract has better antioxidant properties in contrast to essence of *Nepeta crispa*. As a result, hydro-alcoholic extract of *Nepeta crispa* is a good and available source of antioxidant compounds which can be used, if useful, in food, pharmaceutical and industrial products.

کلمات کلیدی:

Essential Oil, Antioxidants, *Nepeta Crispa*, Essential Oil, Antioxidants, *Nepeta Crispa*

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