

Abstract

Antioxidant Capacity of Three *Silene* Extracts Obtained by Ultrasonication-Assisted Extraction (UAE) [†]

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Abstract: Many plants with high antioxidant activity are great of significant in the pharmaceutical and cosmetic industries. Oxidative stress plays a major part in the development of many diseases including cancer, which is known imbalance free radicals and antioxidants. Herein, new natural antioxidant compounds have great interest in the scientific research. The genus *Silene* is a major group in the Caryophyllaceae family. In Turkey, *Silene* species have been used for several medicinal purposes such as skin softening, asthma, bronchitis. In our study, the antioxidant capacity of three *Silene* species (*S. conoidea*, *S. dichotoma* and *S. italica*) were evaluated by different in vitro assays, including free radical scavenging, reducing power, metal chelating, and phosphomolybdenum. In addition, total phenolic and flavonoid contents were analyzed spectrophotometrically. The water extracts contained higher total phenolic content than ethyl acetate extracts. All extracts showed antioxidant capacity. This data indicated that *Silene* species could potentially be used as antioxidant sources in pharmaceutical and cosmetic areas.

Keywords: antioxidant; *Silene*; Turkey



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