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A comparative study on phenolic profiles and antioxidant activity of *Artemisia campestris*

L. From Algeria

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Abstract

The genus *Artemisia* includes the biggest genus of Asteraceae has many healthful uses in human diseases. The present study was conducted to evaluate *in vitro* antioxidant and antibacterial activities of field wormwood, *Artemisia campestris* L. growing wild in the Eastern of Algeria. The aerial parts of the plant were dried at shade and extracted with acetone, ethyl acetate, methanol and water. Total phenolic, flavonoid, flavanol and flavone, tannin and anthocyanin contents of different extracts from the whole plant were determined.

The obtained results indicated that the ethyl acetate extract possessed high phenolic, flavonoid, flavanol and flavone contents and exhibited good antioxidant activity by DPPH, FRAP, β - carotene bleaching methods. However, acetone extract showed strong antiradical property against H₂O₂ and high tannin content. These findings provide evidence that the polyphenolic extract of *A. campestris* L. is a natural source of antioxidant against oxidative damage.

Keywords: *Artemisia campestris*, Antioxidant activity, IC50, EC50.