Abstract

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Flavonoids from the aerial parts of Artemisia biennis Willd

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Background and objectives: The genus *Artemisia* contains over 250 species all over the world. *A. biennis* Willd is one of the species which grows wildly in Iran. Camphor and (E)-beta-farnesene have been reported as the major components of the essential oil from *A. biennis*. In spite of the presence of a rather wide range of reported bioactivities there is no previous phytochemical study on *A. biennis*. **Methods**: The plant was collected from Zoshk (Khorasan Razavi province, Iran). Extraction was done by maceration method using petroleum ether, dichloromethane, ethyl acetate, ethanol and equal amounts of water and ethanol (hydroethanolic extract), respectively. A combination of solid phase extraction (SPE) and high pressure liquid chromatography (HPLC) of the hydroethanolic extract was used to purify the compounds. Structures of the isolated compounds were elucidated by spectroscopic means, including MS and ¹HNMR. **Results**: Three known flavonoids, luteolin, kaempferol and apigenin were isolated and identified from the hydroethanolic extract. **Conclusion**: Our results are in good agreement with dominant presence of derivatives of the flavones luteolin and apigenin in the genus *Artemisia* which has been previously reported.

Keyword: Artemisia biennis, flavonoids, hydroethanolic extract