

Study of antioxidant activity and total phenolic content of 22 plants from *Compositae* family

M. Alizadeh*, O. Firuzi, S. Albadi, K. Javidnia, R. Miri

Medicinal and Natural Products Chemistry Research Center, Shiraz University of Medical Sciences, Shiraz, Iran

Background and Aims: Several biochemical and physiological processes are involved in the production of free radicals. Increase in free radical production could cause many diseases such as atherosclerosis, cancer, diabetes. Medicinal plants are good sources for natural antioxidants. For this reason some plants in *Compositae* family were chosen for studying antioxidant activity.

Methods: Methanolic extracts of the plants were prepared by maceration method. Antioxidant activity of the extracts were studied by FRAP and DPPH assays. Total phenolic content of the extracts were measured by Folin-Ciocalteu method.

Results: The results showed high antioxidant activities for most plants. *Anthemis trumfettii* showed the highest and *Achillea eriophora* showed the lowest antioxidant activities. There was a good correlation between antioxidant activity and total phenolic content.

Conclusions: These findings show that different plants from the *Compositae* family possess interesting biological activities and may be used for discovery and development of novel pharmacologically active compounds.

Keywords: Antioxidant; DPPH; FRAP; *Compositae*; Phenolics