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Phytochemical screening and *in vitro* free radical scavenging activity of different solvent extracts from *Convolvulus virgatus* Boiss

Taoufik Saleh Ksiksi and **Karthishwaran Kandhan**
UAE University, UAE

Convolvulus virgatus Boiss (Family: *Convolvulaceae*) are annual or perennial herbaceous vines, bines and woody shrubs, growing in the United Arab Emirates. The present study aims to explore the phytochemical screening, proximate analysis, estimate of total phenolics, flavonoids and to evaluate antioxidant potential of *C. virgatus* aerial parts. Further, the plant extract was tested for the free radical scavenging activity such as 2, 2-azinobis- (3-ethylbenzothiazoline-6-sulfonic acid) (ABTS+) radical decolorization, DPPH (2, 2-diphenyl, 2-picryl hydrazyl), hydroxyl and nitric oxide radical. The dried powdered leaves of *C. virgatus* (500 g) were extracted with chloroform and then fractionated into ethyl acetate and methanol. Folin Ciocalteu reagent and aluminium chloride colorimetric methods were used to estimate total phenolic and flavonoid content of extracts. ABTS+ (2, 2-azinobis- (3-ethylbenzothiazoline-6-sulfonic acid) radical decolorization, DPPH (2, 2-diphenyl, 2-picryl hydrazyl), hydroxyl and superoxide anion radical were used to determine the free radical scavenging activity. The obtained results from the phytochemical analyses of chloroform extract showed presence of major classes of phytochemicals such as flavonoids, tannins, carbohydrates, alkaloids, proteins, steroids, terpenoids, saponin, phenols and phlobatannins. Additionally, the methanol fraction was found to contain the highest phenolic content and flavonoids. *In vitro* free radical scavenging activities of all the extracts were significant and comparable with the standard ascorbic acid. The results revealed positive linear correlations between these phytochemicals and the free radical scavenging activities. In short, our findings provide evidence that the different extract possess a potential antioxidants property, which justifies its uses in folkloric medicine. The results reported here also show that the aerial parts of *C. virgatus* are a rich source of phenolic compounds that can play an important role in preventing the progression of a variety of illnesses.

Biography

Taoufik Saleh Ksiksi is an Associate Professor (Plant Ecology) working at the UAE University. He deals with the impact of environmental factors/stresses on eco-physiological parameters of desert plants. He is a Post-Doctoral Fellow at the UAEU. His expertise relates to the assessment of phytochemicals on plants species.

tksiksi@uaeu.ac.ae

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