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Master Thesis Defense

Entitled

*Comparative Phytochemical Screening and Antioxidant Activities of Calligonum Comosum
and Calligonum Crinitum*

by

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Abstract

Medicinal plants are vital source of present day prescription and the majority of the recommended modern medications contain their subsidiaries. Calligonum comosum and Calligonum crinitum are perennial shrub plants growing in the United Arab Emirates, and are being utilized as a part of traditional medicinal system of UAE. The aims of proposed study were to evaluate and compare the phytochemical and antioxidant properties of these two plants. The extraction and fractionation were conducted by using petroleum ether, chloroform, ethyl acetate, acetone and methanol. The extracts were tested for their antioxidant activity. Phytochemical studies with total phenolics and flavonoid contents were analysed by following standard methods. Along with this, proximate analysis with micro and macro elements were also estimated. In vitro antioxidant analysis were done by different methods. The results exhibited a positive linear correlation between these phytochemicals such as saponins, flavonoids, tannins, and terpenes and the free radical scavenging activities. Our results confirm that the extracts have potential antioxidants and this legitimizes their use in folkloric medicine. Hence, scientific validation of traditional knowledge can be accomplished in a preparatory level.

Keywords: Phytochemical, Calligonum comosum, Calligonum crinitum, antioxidant.