عنوان مقاله:

Evaluation of the Antioxidant Potential of Aqueous Extracts of Moringa oleifera Leaf and Cocos nucifera Husk : A Comparative Analysis

محل انتشار:

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خلاصه مقاله:

Background: Oxidative Stress (OS) can result in several diseases, such as cancer or neurodegenerative illnesses. Plant antioxidants can supplement the body's antioxidant system, thereby reducing cell oxidation resulting from OS. Objectives: In this research, the antioxidant potential of aqueous husk extract of Cocos nucifera and aqueous leaf extract of Moringa oleifera was evaluated and compared. Methods: Total Phenolic Contents (TPCs), iron-chelating ability, Ferric Reducing Antioxidant Power (FRAP), and ۲,۲-diphenyl-۱-picrylhydrazyl (DPPH) scavenging antioxidant activity of aqueous husk extract of Cocos nucifera and aqueous leaf extract of Moringa oleifera are determined spectrophotometrically at varying concentrations (۲۵, ۵۰, ۷۵, ۱۰۰, ۱۲۵μg/mL) and ۱-sample t test statistical analysis was done using GraphPad Prism. The statistical significance was set at P<۰.۰۵. Results: The aqueous husk extract of Cocos nucifera and aqueous leaf extract of Moringa oleifera possess antioxidant activities at all tested concentrations. Significant increases were observed in TPCs, iron-chelating ability, and FRAP of aqueous leaf extract of Moringa oleifera compared with aqueous husk extracts of Cocos nucifera at the same concentration. In contrast, a significant decrease in DPPH scavenging activities was observed. Conclusion: Both aqueous husk extract of Cocos nucifera and aqueous leaf extract of Moringa oleifera are potent antioxidant agents and could be useful in supplementing the endogenous .antioxidant system. Albeit, the aqueous leaf extract of Moringa oleifera is a more powerful antioxidant agent

کلمات کلیدی:

Ferric Reducing Antioxidant Power (FRAP), ۲, ۲-Diphenyl-۱-picrylhydrazyl (DPPH), Total phenolic contents, Iron-chelating ability, Antioxidants