



Membrane Stabilizing and antioxidant activities of extracts from leaves of *Elaeocarpus sphaericus*

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Abstract : Medicinal plants have played an essential role in the development of human culture. Plant and plant products have utilized with varying success to cure and prevent diseases throughout history. In the present study different extracts of leaves of *Elaeocarpus sphaericus* were prepared and evaluated their membrane stabilizing and antioxidant effects. Evaluation of membrane stabilizing and antioxidant activity by hypotonic solution induced hemolysis and DPPH method respectively. All extract were tested for presence of phytoconstituents i.e., alkaloid, carbohydrate, sterols, proteins, amino acids, saponin, and phenolic compounds in different extracts. From the results, we found out that total methanol extract of leaves was the richest extract for phytoconstituents. It contains maximum tested phytoconstituents viz. Alkaloids, carbohydrates, phenolic compounds, Sterols and Saponin except Protein and amino acids. Total methanol extract of leaves showed maximum membrane stabilizing activity ($66.65 \pm 3.22\%$) and ethyl acetate fraction of leaves showed maximum antioxidant activity ($90.28 \pm 1.03\%$).

Keywords : *Elaeocarpus sphaericus*, Membrane stabilzation, Erythrocyte, DPPH, antioxidant, anti-inflammatory, Ascorbic acid, Aspirin.