

In vitro antioxidant activity of different solvent extracts obtained from *Leea indica* (Burm.f.) Merr (Burulla) leaves grown in Sri Lanka

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The importance of natural antioxidants has been arisen due to the carcinogenic nature of the synthetic antioxidants. *Leea indica* (Burm.f.) Merr. is a medicinal plant used in traditional Ayurvedic medicine in Sri Lanka to treat various diseases. The present study was aimed to evaluate in vitro antioxidant activity of *Leea indica* (Burm.f.) Merr. (Burulla) leaves grown in Sri Lanka. 70% aqueous acetone and 80% aqueous methanol extracts were prepared by steeping method and subjected to the determination of total phenolic and total flavonoid contents by Folin-Ciocalteu assay and aluminiumchloride colorimetric method, respectively. In vitro radical scavenging activity and antioxidant activity of the extracts were evaluated using 2, 2-diphenyl-1-picrylhydrazyl (DPPH) assay and ferric-reducing antioxidant power (FRAP) assay. Total phenolic contents were 4891.776 ± 64.965 (70% aqueous acetone) and 3413.859 ± 85.493 (80% aqueous methanol) mg Gallic acid equivalent /100 g dry weight of leaves. Total flavonoid contents were 1711.220 ± 22.829 (70% aqueous acetone) and 920.867 ± 39.833 (80% aqueous methanol) mg Catechin equivalents /100 g dry weight of leaves. The results of DPPH assay showed significantly high antioxidant capacity (13.418 ± 0.312 mMol Trolox equivalents/100 g DW of leaves) for 70% aqueous acetone extract compared to the value (9.421 ± 0.431 mMol Trolox equivalents/100 g DW of leaves) obtained for the 80% aqueous methanol extract. Antioxidant activity by FRAP assay was 17.796 ± 0.343 (70% aqueous acetone) and 12.422 ± 0.490 (80% aqueous methanol) mMol Fe (II) equivalents/100 g DW of the leaves. It can be concluded that the leaf extracts of *Leea indica* (Burulla) possess promising in vitro antioxidant activity which should be further investigated.

Keywords: *Antioxidant activity, DPPH assay, FRAP assay, Leea indica*

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