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ANTIOXIDANT POTENTIAL OF SRI LANKAN NATIVE PLANT

Adenanthera pavonina

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Sri Lankan ayurvedic treatments use herbs. They are rich in antioxidants which are able to scavenge reactive oxygen species and associated in prevention of many diseases. The objective of this study was to investigate the antioxidant properties of *Adenanthera pavonina*, a native Sri Lankan herb, which is used in the treatment of diseases including cancer. Lyophilized sample of the decoction prepared from the bark of *A. pavonina* was used to determine antioxidant capacity and phytochemical constituents. Free radical scavenging activity was estimated by 2,2-diphenyl-1-picryl-hydrazyl-hydrate (DPPH) assay whereas the antioxidant capacity was determined by ferric reducing antioxidant power (FRAP) assay. Total phenolic content was determined by Folin-Ciocalteu method and the tannin content was estimated using polyvinylpyrrolidone (PVPP). The IC₅₀ for DPPH assay was found to be 15.01 ± 0.57 µg/mL. The FRAP assay resulted a dose dependent increase in absorbance over a wide range of concentrations. The total phenolic content and the tannin content of the bark were 210.55 ± 16.94 mg GAE/g and 188.39 ± 16.67 mg GAE/g respectively. Based on the results, it can be concluded that *A. pavonina* has high antioxidant potential with high amounts of phenols and tannins.

Keywords: *Adenanthera pavonina*, antioxidants, phenols, tannins