

Abstract:

We investigated the antioxidant ability, phenolic contents and cytotoxic effects of seven widely edible Nigerian medicinal plants, as a means of validating their ethnomedicinal use. Standard antioxidant assays assessed the capability of the extracts in scavenging 2,2-diphenyl-1-picrylhydrazyl (DPPH), hydroxyl (radical dotOH), and superoxide anion View the MathML source(O₂⁻) radicals, as well as in inhibiting lipid peroxidation. The extracts possessed significant antioxidant activity compared to standards and the 7-amino actinomycin and WST-1 cytotoxicity assays proved that they were non-toxic to human peripheral blood mononuclear cells, and the A2.01 cell line. *Landolphia owariensis* and *Irvingia gabonensis* had the most antioxidant activity in the DPPH assay, compared to ascorbic acid. They also significantly inhibited lipid peroxidation. *I. gabonensis* and *Nauclea latifolia* powerfully quenched the radical dotOH radical compared to α -tocopherol. The extracts' antioxidant activity and lipid peroxidation inhibitory potencies correlated with their phenolic and flavonoid contents. Thus, the antioxidant activities could be factors contributing substantially to their traditional medicinal use.