

In Vitro and in Vivo Biological Investigations of *Philodendron Bipinnatifidum* Schott Ex Endl (Araceae) and Its Bioactive Phenolic Constituents

Authors : Alia Ragheb

Abstract : *Philodendron* species were reported in traditional medicine for the treatment of several diseases. From the 70% methanol extract of the aerial parts of *Philodendron bipinnatifidum* Schott ex Endl, nine flavonoid compounds were isolated and identified for the first time; saponarin, genkwanin 8-C-(2''-O- β -glucopyranosyl)- β -glucopyranoside, apigenin 6-C-(2''-O- β -glucopyranosyl)- β -glucopyranoside, schaftoside, swertisin, swertiajaponin, isoswertisin, isorhamnetin 3-O-(2''-acetyl)- β -glucopyranoside and apigenin. Characterization of the plant was achieved using chromatographic, physical, chemical, spectroscopic, and spectrometric techniques. The 70% methanol aerial parts extract and the methanol fraction of the plant were in vivo screened for their acute anti-inflammatory, antipyretic and analgesic effects where significant effects were exhibited compared to that of reference drugs. From the reported literature, these biological activities could be attributed to its phenolic constituent. The 70% methanol aerial parts and successive extracts, as well as some pure isolated flavonoid compounds, were in vitro investigated for their antioxidant, antimicrobial and cytotoxic activities.

Keywords : antioxidant, araceae, cytotoxicity, flavonoids

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