



IN-VITRO ANTIMICROBIAL ACTIVITY AND PHYTOCHEMICAL ANALYSIS OF
LEAVES OF *Ionidium suffriticosum* (GING)

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ABSTRACT

Anti-microbial activity and phytochemical compounds of ethanolic extract of the leaves of *Ionidium suffriticosum* have been investigated for which four clinically isolated bacteria (*Enterobacter sp.*, *Klebsiella pneumoniae*, *Staphylococcus sp.* and *E. coli*) and two fungi (*Candida sp.*, and *Aspergillus sp.*) were subjected to the study. The activity was tested by well diffusion assay. The phytochemical compounds of ethanolic extract of the leaves of *Ionidium suffriticosum* were analyzed using Gas chromatography-mass spectrometry. The results showed that the extracts possessed tremendous antimicrobial effects against the tested pathogens such as *Enterobacter sp.*, *E.coli* and *Candida sp.* The GC-MS analysis of ethanolic extract of the leaves of *Ionidium suffriticosum* revealed the presence of 22 different active phytochemicals including alkaloids, flavonoids, palmitic acid and linoleic acids. The presence of phytochemicals in leaves were determined by peak area and retention time (Rt) represented in a graph. The results of this study suggested the possession of strong antimicrobial activity by this plant's leaves and the prominent role of its phytochemicals against pathogenic microbes. Further investigation is needed for isolation of active principles for drug formulation and molecular research in herbal plants.

Keywords: *Ionidium suffriticosum*, *oorithal thamarai*, Phytochemicals, GC-MS
Analysis, Anti-Microbial Activity, Well Diffusion Assay