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QUANTITATIVE ESTIMATION AND GC-MS ANALYSIS OF *RAUVOLFIA DENSIFLORA* (WALL.) BENTH. EX HOOK. F. (SNAKEROOT)

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ABSTRACT

Rauvolfia densiflora (Wall.) Benth. ex Hook. f. (Snakeroot) belongs to the family Apocynaceae and is known for its medicinal properties. The present study was carried out to evaluate the total phytochemicals, anti-inflammatory activity, and possible bioactive components present in the methanolic stem extract of the plant. The quantitative analysis of methanolic extract of *R. densiflora* (Wall.) Benth. ex Hook. f. revealed the presence of 905.67 µg/ml of phenol, 36.87 µg/ml of flavonoids, and 178.27 µg/ml of alkaloids. The GC-MS analysis was carried out using methanolic extracts, it showed the presence of 10 bioactive compounds, which include main bioactive compounds like spiro-[1,3-dioxolane-2,3'-indolin]-2'-one, neophytadiene, Sarpagan-16-carboxylic acid, 17-oxo-, methyl ester and Spironolactone.

Keywords: Bioactive compounds, GC-MS, Phenol, Phytochemicals, *Rauvolfia densiflora* (Wall.) Benth. ex Hook. f.

INTRODUCTION

The discovery of novel medications from locally grown medicinal plants is greatly aided by ethnomedical research (Mustafa et al., 2017). In their natural or partially manufactured forms, various chemicals produced from plants have been employed as medications (Salim et al., 2008). The family Apocynaceae consists of tropical trees, shrubs, and vines. All family members yield milky sap, which is one of the defining characteristics of the family (wong et al., 2013). Densiflora Rauvolfia Benth. ex. Hook.f. (Apocynaceae) is a tiny tree found in Sri Lankan forests at elevations of 700–2200 meters. This plant is known as "paarisirunila" by the Kanikkars tribe of Tamil Nadu, and "Kattamalpori" in Malayalam, although its true name is "Dense-flowered Snake Root." It is a significant source of phytochemicals with pharmacological and therapeutic potential and contains a

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