

EVALUATION OF ANTIFUNGAL ACTIVITY AND FORMULATION OF HERBAL HAIR OIL FROM *Phyllanthusniruri*

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ABSTRACT

Phyllanthusniruri is a widespread tropical herb which is well known for its medicinal properties. In the present study, we evaluated the antifungal activity of acetone, hexane, chloroform and methanolic extract of leaves of *P. niruri*. In addition, the formulation of herbal hair oil from *P. niruri* leaves against certain fungal species causing scalp disorders was also analyzed. Phytochemical screening of the extract in different solvents was carried out in order to assess the presence of terpenoids, alkaloids, flavanoids, saponin, polyphenols, and tannin. GC-MS analysis was performed to analyze the active compound present in the plant extract. The antifungal activity of the plant was investigated by using agar well diffusion method and the maximum zone of inhibition was observed in the methanolic extract. The formulated oil was also evaluated for its organoleptic properties, acid value, pH, specific gravity and density. All the parameters were found to be effective and within the standards. Altogether, the study suggests a preventive effect of *Phyllanthusniruri* in fungal species, but still, longer-term randomized clinical trials are necessary to confirm its therapeutic properties.

KEYWORDS: Antifungal Activity, Extraction, GC-MS, Herbal Hair Oil, *Phyllanthusniruri*, Phytochemicals

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