



Evaluation of Antifungal Potential of *Coccinia Grandis* leaves Extracts

Arpita Gupta¹, Sushankar Par¹, Harsh Tripathi¹, Dr. Tarun Parashar^{1*}, Dr. Mohit Sanduja²

¹School of Pharmacy and Research, Dev Bhoomi Uttarakhand University, Dehradun, Uttarakhand-248007, India

²School of Pharmaceutical Sciences & Technology, Sardar Bhagwan Singh University, Dehradun, Uttarakhand-248001, India

Email Id: serviceheb@gmail.com

Abstract

Fungal infections continue to be a significant public health issue, increasingly complicated by the rise of resistance to standard antifungal treatments. Traditional medicinal plants like *Coccinia grandis* are being explored as promising sources of novel antifungal compounds. This study evaluated the antifungal potential of *Coccinia grandis* leaf extracts prepared using methanol and chloroform against *Candida albicans* and *Aspergillus niger*. The leaves were freshly harvested, shade-dried, ground, and extracted using a Soxhlet apparatus. Antifungal activity was measured using the agar well diffusion method at concentrations ranging from 62.5 to 1000 µg/disc. Results showed no detectable inhibition zones for either extract, while the positive control displayed clear antifungal activity, validating the experimental method. The lack of observed antifungal effects may be due to low levels of active compounds, poor solvent efficiency, or resistance in the tested fungi. These findings suggest that while the crude extracts showed no activity, more advanced extraction and purification techniques are needed to explore the true antifungal potential of *Coccinia grandis*.

Keywords

Coccinia grandis, antifungal potential, traditional medicinal plants, *Candida albicans*, *Aspergillus niger*, Soxhlet extraction, diffusion assay, phytochemicals

Access this Article Online	Quick Response Code: 
Website: http://www.journalofhospitalpharmacy.in	
Received on 31/05/2025	
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