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Development and Evaluation of Topical Herbal Formulation for Infectious Eczema

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Abstract: *The study Development and Evaluation of Topical Herbal Formulation for Infectious Eczema presents a comprehensive investigation into the preparation and assessment of a herbal gel aimed at addressing infectious eczema. The research methodology involved meticulous plant collection, extraction, and subsequent physicochemical and phytochemical analyses. Murraya koenigli leaves were collected, identified, dried, and ground into a fine powder before undergoing successive extraction with solvents of increasing polarity. The resulting extracts were concentrated and stored for future use. Physicochemical constants of the powdered drug were determined, including moisture content, total ash value, and extractive values, providing insights into the composition and quality of the herbal material. Preliminary phytochemical evaluations were conducted to identify the presence of specific phytoconstituents such as alkaloids, saponins, flavonoids, phenols, and triterpenoids. These evaluations involved various qualitative tests, each confirming the presence of specific compounds indicative of potential bioactivity. Subsequently, a herbal gel was formulated using the plant extract and Carbopol-934 as a gelling agent, along with other excipients. The gel formulations were evaluated for pH, spreadability, extrudability, and stability over time. Results indicated suitable pH values, spreadability, and extrudability across different formulations, suggesting their potential for dermatological applications. Stability studies demonstrated consistent physical appearance, rheological properties, spreadability, pH, and drug levels over a one-month period, affirming the formulations' stability and therapeutic potential. Overall, this study provides valuable insights into the development of effective herbal formulations for managing infectious eczema, contributing to the advancement of natural-based therapies in dermatology and offering promising avenues for further research and clinical application*

Keywords: Herbal formulation, infectious eczema, phytochemical analysis, topical gel, Murraya koenigii, physicochemical properties, stability study, dermatological applications