

Preparation of Topical Cream for Athletes Foot and Foot Crack using Five Indian Medicinal Plants and their Evaluation

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Abstract: *About 15-20% people suffering from Athlete's foot. Athlete's foot is a fungal infection caused by dermatophyte. The fungus causing athlete's foot can be easily spread through direct contact with infected skin or contaminated surfaces. Open cracks in the feet can become entry points for bacteria which leads to further complications. This study aimed to investigate the antifungal and antibacterial activities of a topical cream formulated for the treatment of athlete's foot and foot cracks. The cream was prepared using ethanolic extracts from the whole plant of Centella asiatica, the root of Rubia cordifolia, and the leaves of Chromolaenaodorata, Azadirachta indica. The presence of secondary metabolites including alkaloids, flavonoids, tannins, glycosides, carbohydrates and saponins in these extracts was determined through phytochemical screening. The antifungal and Antibacterial activity of herbal formulation can be evaluated using the fungus Candida albicans and the bacterium Staphylococcus aureus species. The results of the study demonstrated that the topical formulation exhibited significant antifungal and antimicrobial activities at various concentration. Additionally, the cream effectively inhibited the fungi responsible for athlete's foot and reduced skin dryness, thereby preventing foot cracks.*

Keywords: Antifungal activity, Antimicrobial activity, Athlete's foot, Foot crack