FORMULATION OF ANTIMICROBIAL GEL WITH THE LATEX OF *CALOTROPIS GIGANTEA*

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Abstract:

Aim: The main intention of this research work was to formulate and evaluate the gel formulation and the latex drug extract of the plant *calotropis gigantea*. Traditionally the dried root is powdered and effectively used to cure bronchitis, asthma, leprosy, eczema and elephantiasis. Its milky latex is rich in lupeol, calotropin, calatoxin and uscharin. **Method:** The gel was formulated by using hydroxyl propyl methyl cellulose (HPMC) as a polymer. The plant latex was extracted by using centrifuge. The TLC test was performed to determine the active constituents of the latex extract. The antimicrobial activity was performed by Kirby–Bauer procedure. The antibacterial activity and antifungal activity was evaluated against *E.Coli*, *Staphylococcus aureus* and *rhizopus nigricans* respectively. The formulated gel also evaluated for its antimicrobial property by Kirby–Bauer procedure. **Results:** 2ml of the extract was found to be the yield from 30 gms of the leaves. 3ml of the latex was obtained as the yield from 20ml of the plant latex. 10 ml of the gel was prepared from 3ml latex. The TLC report says that it contains lupeol, calotropin, calatoxin and uscharin. **Conclusion:** The antimicrobial study reveals that the bacterial species was found to have more sensitive than fungal species. The study suggest to make use of the plant for Anti-Diarrheal, Wound Healing, Anti-Inflammatory, Vasodilation, Hepatoprotective, Antipyretic and Insecticidal

Key words: *calotropis gigantea*, antimicrobial, latex, gel