## **IJARSCT**



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 4, Issue 3, June 2024

## Development and Assessment of Turmeric- Based Hydrogel for Psoriasis Therapy

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Abstract: Psoriasis is a chronic inflammatory skin disorder impacting millions globally. Standard treatments such as topical corticosteroids, immunomodulators, and phototherapy often have limited efficacy or cause adverse side effects. Curcumin, a natural compound known for its anti-inflammatory and antioxidant properties, has shown promise as an alternative treatment for psoriasis. However, the low solubility and bioavailability of curcumin reduce its effectiveness when used orally or topically. To overcome these challenges, a topical curcumin hydrogel has been developed. This review examines the current research on curcumin hydrogel as a treatment for psoriasis, discussing its pharmacological properties, formulation, and the findings from preclinical and clinical studies regarding its efficacy and safety. The evidence indicates that curcumin hydrogel could be a promising alternative treatment for psoriasis, potentially reducing inflammation, aiding wound healing, and enhancing the quality of life for patients. Further research is required to fully understand the mechanism of action of curcumin hydrogel and to optimize its formulation and delivery for maximum effectiveness.

Keywords: Psoriasis, Inflammatory Skin disorder, anti- oxidant properties, curcumin hydrogel)

DOI: 10.48175/IJARSCT-18944

