Reg. No: RJ17D0105798

ISSN NO: 2582-0648

HEB

JRIM

Journal of Research in Indian Medicine
An Official Publication of Bureau for Health & Education Status Upliftment
(Constitutionally Entitled As Health-Education, Bureau)

Plant-Derived Phytoconstituents for Psoriasis: Targeting Inflammatory Pathways and Insights of Marketed Herbal Formulations

Akshada Mevada[1], Sapna Desai[1], Sohan Patel[1], Satyajit Sahoo[1], Archana Kaushik[1], Dhananjay Meshram[1]*

[1]Department of Pharmacy, Pioneer Pharmacy College, Vadodara, Gujarat-390019

Correspondence: Dr. Sapna Desai, Professor, Pioneer Pharmacy College, Vadodara, Gujarat.
Email ID: serviceheb@gmail.com

Abstract

Around 2-3% of the worldwide population is affected with psoriasis, a chronic immune–mediated inflammatory skin condition. This condition is marked by abnormal keratinocyte proliferation and systemic inflammation. Corticosteroids, Vitamin D analogues, phototherapy, and systemic medicines (Biologics) are current conventional treatments that are often constrained by side effects, relapse, and expenses. Due to restrictions, more research is being carried forward on the phytoconstituents derived from plants as safe, multi-targeting medicinal substitutes as therapeutic alternatives. By altering the inflammatory signalling pathways of psoriasis: JAK/STAT, MAPK, NF-kB, and IL-23/Th17, with compounds like curcumin, berberine, quercetin, kaempferol, indigo naturalis, aloe-emodin, and boswellic acids have demonstrated potent anti-inflammatory, antioxidant, and immunomodulatory properties. Preclinical and clinical research show that skin barrier function is improved, cytokine profiles return to normal, and psoriasis area and severity index (PASI) scores improve. Additionally, the commercially available herbal preparations that contain these bioactives, like extract from Mahonia aquifolium, ointment of Indigo Naturalis, and multi-herbal Ayurvedic combinations, show notable efficacy and safety. However, the issues with bioavailability, standardisation, and regulatory validation still exist. Considering all the areas, phytoconstituents offer a viable, all-encompassing strategy for managing psoriasis and developing new medications.

Keywords: Psoriasis, Phytoconstituent, JAK/STAT, MAPK, herbal formulations, anti-inflammatory.

Access this Article Online	Quick Response Code:
Website: http://heb-nic.in/jrim	
Received on 04/11/2025	
Accepted on 13/11/2025	