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## Review Paper

# Herbal Medicine as A Corrective Lens for Misdiagnosed Skin Conditions

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## ABSTRACT

Skin diseases are some of the most common health problems seen in hospitals today, but they are also very difficult to diagnose correctly. Conditions like dermatitis, eczema, and psoriasis often look very similar, which leads to "misdiagnosis" (wrong diagnosis). When doctors mistake one condition for another, they might give patients conventional drugs like steroids or antibiotics based on an incorrect diagnosis. This can cause unnecessary side effects and contribute to antibiotic resistance. This review article explores how herbal medicines can complement conventional treatments and provide additional solutions for these confusing skin conditions. I have reviewed the literature on six important medicinal plants: *Boswellia serrata*, *Wrightia tinctoria*, *Costus speciosus*, *Rubia cordifolia*, *Berberis aristata*, and *Moringa oleifera*. The study explains how the active chemicals in these plants—like boswellic acids, indirubin, and berberine—work to reduce inflammation and inhibit harmful bacteria. These herbs offer multiple bioactive compounds that can address multiple pathways simultaneously, which may be useful when exact diagnosis is unclear. These plants can effectively repair the skin barrier and reduce swelling. The research shows that herbal medicines offer a promising complementary treatment option for skin disorders with a favorable safety profile. However, more well-designed clinical trials are needed to create standardized herbal formulations for clinical use alongside conventional therapies.

## INTRODUCTION

The skin is the most visible organ of the human body and plays a crucial role in defining external appearance, while also serving as an important medium for social and sexual communication.<sup>(1)</sup> Beyond its social significance, the skin is a highly

specialized organ composed of three layers—epidermis, dermis, and hypodermis—each with distinct structural and functional properties (figure-1). Together, these layers form a complex barrier that protects the body from pathogens, ultraviolet radiation, chemicals, and mechanical insults. In addition, the skin is actively involved in

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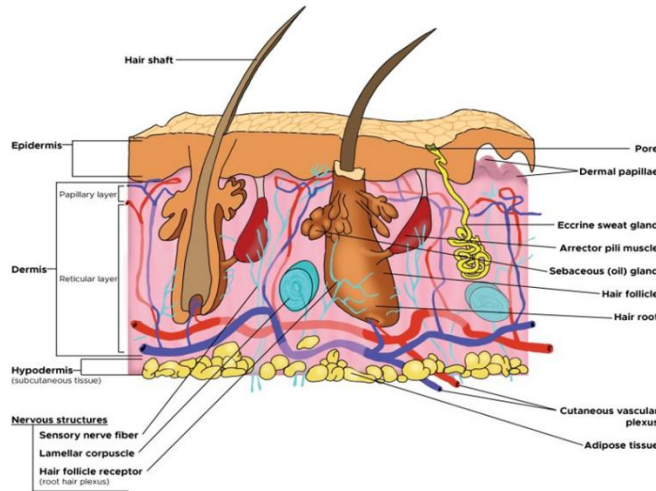
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thermoregulation and water balance, underscoring its essential role in maintaining overall physiological homeostasis.<sup>(2)</sup>



**Figure 1. layers of skin , hair follicles , sweat glands.<sup>(2)</sup>**

Since the skin works as a barrier, it can easily be affected by many inflammatory and infectious conditions. Problems like wounds that heal slowly, changes in sensation, and cosmetic issues are also common in medical and surgical practice. That is why understanding the skin’s structure and function is important for treating patients with different diseases.<sup>(2,3)</sup> Moreover, skin disorders often lower an individual’s confidence in their appearance and reduce quality of life, making

them not only a medical issue but also a psychosocial concern.<sup>(4)</sup>

Among these conditions, dermatitis is one of the most common and clinically significant inflammatory skin disorders. It refers to inflammation of the skin that leads to redness, itching, and a weakened barrier, though the causes differ from one type to another. Each form also shows certain features that make it easier to recognize.<sup>(5)</sup>

**Table 1. Common Types of Dermatitis and Their Triggers**

Types	Causes and Clinical Features
Irritant Contact Dermatitis (ICD)	Triggered by Repeated exposure to soaps, detergents, solvents, or frequent wet work leading to direct barrier disruption and irritation. <sup>(6,7)</sup>
Allergic Contact Dermatitis (ACD)	Triggered by Metals (e.g. nickel) ,fragrances , preservatives, or rubber accelerators causing type IV hypersensitivity reactions. <sup>(6,7)</sup>
Atopic Dermatitis (AD)	Occurs due to a combination of genetic predisposition, skin barrier weakness and immune system imbalance, presenting with persistent itching and relapsing episodes of inflammation. <sup>(5)</sup>
Seborrheic Dermatitis (SD)	Occurs in oily skin areas with microbial imbalance and altered immune response, presenting as recurrent inflammation. <sup>(8)</sup>
Stasis Dermatitis	Occurs due to chronic venous insufficiency in the lower legs, presenting with swelling, brown discoloration, and risk of ulceration. <sup>(9)</sup>

**COMMONLY MISUNDERSTOOD DERMATOLOGICAL CONDITION**

Dermatitis is often misunderstood, which can lead to delayed treatment and unnecessary harm. For instance, nearly 40% of cases initially diagnosed

as cellulitis are later found to be stasis dermatitis by specialists. Similarly, eczema is frequently confused with other skin conditions such as ringworm, scabies, or psoriasis, particularly when symptoms are mild, atypical, or appear early. These misunderstandings not only compromise patient care but may also result in unnecessary treatments, such as antibiotics, increasing the risk of resistance and other complications.<sup>(10,12)</sup>

The reasons behind these misunderstandings are complex. The absence of specific laboratory or histologic markers, combined with the disease's variable presentation, makes accurate recognition challenging. Limited familiarity with established

clinical criteria among healthcare providers further complicates diagnosis. In some studies, reliance on routine hospital data—such as changes in a patient's diagnosis during their stay—without formal reassessment, makes it difficult to estimate the true rate of misdiagnosis.<sup>(10,11)</sup>

These factors help explain why dermatitis is so frequently misunderstood in clinical practice, making careful clinical evaluation and adherence to established diagnostic guidelines essential. Enhancing clinicians' knowledge and awareness of the disease can minimize misdiagnoses and improve patient outcomes.<sup>(10)</sup>

**TABLE 1.1. Common Dermatological Conditions That Are Often Misunderstood or Misdiagnosed**

<b>Dermatological Condition</b>	<b>Commonly Misdiagnosed as..</b>	<b>Similar Symptom</b>
Psoriasis	Eczema, Seborrheic dermatitis, Pityriasis rubra pilaris, pityriasis rosacea , lupus , skin cancer (mycosis fungoides) , syphilis.	Small Red marks on the skin , scaly patch; sometimes itchy. <sup>(13)</sup>
Eczema	Ringworm , psoriasis , Allergic contact dermatitis , skin lymphoma , acne , lupus	Dry skin, itching, and scaly patches or rashes. <sup>(14)</sup>
Atopic dermatitis	Eczema (contact dermatitis , neuro dermatitis , Seborrheic dermatitis ) , psoriasis.	itchy, red, dry skin rash , coin-shaped round patches <sup>(15)</sup>
Lichen planus	Psoriasis, Guttate psoriasis, hypertrophic actinic keratosis , keratoacanthoma, Invasive squamous cell carcinoma (SCC).	Purple, polygonal, flat-topped papules , violaceous plaques with scaling. <sup>(16-18)</sup>
Lupus erythematosus	Psoriasis , erythema nodosum , erysipelas, tinea faciei, sunburn(butterfly rash), rosacea ,seborrheic dermatitis. <i>(Note: erysipelas misdiagnosis documented specifically with lupus erythematosus tumidus subtype).</i>	Photosensitive butterfly rash on cheeks/nose bridge, red plaques with scaling , facial erythema , swollen skin. <sup>(19,20-23)</sup>
Hailey-Hailey disease	Candida intertrigo , fungal infection , inverse psoriasis , contact dermatitis , scabies , pemphigus vegetans , Darier's disease.	Redness and maceration in skin folds , painful erosions and vesico-bullous lesions , foul-smelling discharge. <sup>(24,25-27)</sup>
Mycetoma	Cutaneous tuberculosis , bartomycosis , actinomycosis, blastomycosis , chromomycosis , sporotrichosis , dermatophyte pseudomycetomas , mossy foot / podoconiosis , malignant tumors (sarcoma) , Kaposi sarcoma.	Painless subcutaneous swelling, multiple draining sinuses , purulent discharge , progressive deformity , localized skin changes . <sup>(28-30)</sup>

## TREATMENT

Today's approach to treating skin conditions blends traditional remedies with modern therapies. For centuries, humans have relied on plant-based treatments to address various skin issues. The growing shift toward natural products, a renewed connection with traditional healing methods, and the rise of herbal remedies in the wellness movement have all contributed to the modern



**Figure 2.** *Boswellia serrata* (On left side) tree bark with rough texture. (On right side) yellowish oleo-resin tears coming from bark.<sup>(32)</sup>

**Synonym :** Salai Guggal , Indian Olibanum or Indian Frankincense.<sup>(32)</sup>

**Biological source:** *Boswellia serrata* extract is obtained from the gummy oleo-resin that seeps from just under the tree's bark (family: Burseraceae; Genus: *Boswellia*).<sup>(33)</sup>

**Geographical source:** Widely cultivated across dry mountainous regions of India, particularly in the region of the States of Andhra Pradesh, Gujarat, Madhya Pradesh, Jharkhand and Chhattisgarh and also found in parts of Africa and Middle East.<sup>(33,34)</sup>

**Active constituents:** *Boswellia serrata* oleo-gum resin is rich in pentacyclic triterpenic acids (boswellic acids), including  $\beta$ -boswellic acid, acetyl- $\beta$ -boswellic acid (ABA), 11-keto- $\beta$ -boswellic acid (KBA), and 3-O-acetyl-11-keto- $\beta$ -boswellic acid (AKBA), along with diterpenoids such as incensole and incensole oxide, essential oils, and polysaccharides.<sup>(35)</sup>

comeback of botanical therapy. More people are now choosing herbal options, especially for skin conditions. Plants like Aloe Vera, Neem, Tulsi, and many other medicinal herbs are being used to help treat dermatitis and similar skin disorders.<sup>(31)</sup> While many plants have been studied for treating skin conditions, several herbs have shown especially promising effects in recent research.

### 1. *Boswellia serrata*

The resin of *Boswellia serrata* has six different boswellic acids (BAs), which are active ingredients that block 5-lipoxygenase and are being widely studied in recent research. Studies show that these boswellic acids help to treat inflammatory conditions, with AKBA being the most effective one because it absorbs into skin better and has stronger anti-inflammatory effects.<sup>(36)</sup>

Fereidouni et al. (2024) developed a novel *Boswellia* Nano-emulsion gel (BNG) that significantly reduced psoriatic inflammation by inhibiting IL-17, IL-23, and TNF- $\alpha$  gene expression in IMQ-induced mouse models.<sup>(37)</sup>

Tsai et al. (2022) found that  $\alpha$ -boswellic acid significantly reduced skin inflammation and swelling in mice with atopic-like dermatitis by inhibiting MAP kinase activation and NF- $\kappa$ B signaling, helping restore normal skin barrier function.<sup>(38)</sup>

Dong et al. (2024) found that  $\alpha$ -boswellic acid accelerates wound healing by suppressing TNF- $\alpha$

and IL-6 while enhancing growth factors (TGF- $\beta$ 1, FGF2, and EGF) through NF- $\kappa$ B pathway modulation, demonstrating its comprehensive therapeutic potential in inflammatory skin conditions and promoting tissue regeneration<sup>(39)</sup>

## 2. *Wrightia tinctoria* :



**Figure 3.** *Wrightia tinctoria* (leaves & flowers)<sup>(41)</sup>

**Synonym:** Sweet Indrajao, Pala Indigo Plant, Dyer's Oleander.<sup>(40)</sup>

**Biological source:** Leaves, bark, and seeds of *Wrightia tinctoria* (family: Apocynaceae; Genus: *Wrightia* ).<sup>(41)</sup>

**Geographical source:** Widely distributed across India, Myanmar, Nepal, Bangladesh, Thailand, Vietnam, and Australia. In India, it is found throughout peninsular and central regions including Rajasthan, Tamil Nadu, Madhya Pradesh, Gujarat, Karnataka, Andhra Pradesh, and Maharashtra, thriving in dry deciduous forests.<sup>(40,42)</sup>

**Active constituents:** The plant contains diverse bioactive compounds distributed across different parts. The leaves are rich in indole alkaloids

(indigotin, indirubin, tryptanthrin, wrightial, isatin), flavonoids (kaempferol-3-O-rhamnoside, quercetin-3-O-sophoroside, iso-orientin, rutin), and triterpenoids (lupeol,  $\alpha$ -amyrin,  $\beta$ -amyrin, ursolic acid, oleanolic acid, betulinic acid). The bark contains significant concentrations of sterols ( $\beta$ -sitosterol, stigmasterol, campesterol), phenolic compounds, and saponins, while seeds show higher levels of alkaloids and glycosides. Essential fatty acids and phenolic compounds are found throughout the plant parts.<sup>(41,43)</sup>

The leaves have high amounts of bioactive alkaloids and triterpenoids that provide strong anti-inflammatory, antimicrobial, and skin-healing properties needed for treating various dermatological conditions. Ojha et al. (2025) found that *Wrightia tinctoria* leaf extracts (100–200  $\mu$ g/mL) inhibited HaCaT keratinocyte proliferation by over 50% and induced apoptosis, while markedly reducing IL-8 and RANTES secretion, demonstrating its anti-psoriatic potential in vitro.<sup>(44)</sup>

Jurel et al. (2024) found that a *Wrightia tinctoria* oil-based emulgel significantly inhibited HaCaT keratinocyte proliferation and achieved nearly complete ( $\approx$ 99%) drug release within 10 hours, confirming its potent anti-psoriatic activity in vitro.<sup>(45)</sup>

Singh et al. (2024) reported that *Wrightia tinctoria* bark ethanol extract promoted wound healing in rats by accelerating wound contraction, reducing inflammation, and enhancing collagen synthesis, confirming its therapeutic potential in skin repair<sup>(46)</sup>

## 3. *Costus Speciosus*:



**Figure 4.** *Costus speciosus* (On left side) whole plant with white flower (On right side) rhizomes.<sup>(47)</sup>

**Synonym:** Crepe Ginger, Insulin Plant, Spiral Ginger.<sup>(47)</sup>

**Biological source:** Leaves, bark, and rhizomes of *Costus speciosus* (j.koenig) Sm., recently reclassified as *Hellenia speciose* (J. Koenig ex Smith) (family: Costaceae; Genus: costus)<sup>(47,48)</sup>

**Geographical source:** Widely distributed across India, particularly in the Himalayan ranges from Himachal Pradesh, Uttaranchal, Bihar, Assam, Meghalaya, Khasi and Jaintia hills, North Bengal, Orissa, Western Ghats of Maharashtra, Tamil Nadu, Karnataka, Kerala, and Eastern Ghats of Andhra Pradesh. Also found in Sri Lanka, Indonesia, Malaysia, and other Southeast Asian countries.<sup>(48)</sup>

**Active constituents:** The rhizomes are rich in steroidal saponins such as diosgenin (0.15-1.88%), tigogenin, dioscin,  $\beta$ -sitosterol, and sesquiterpene lactones including costunolide and dehydrocostus lactone & The leaves contain alkaloids, flavonoids, tannins, and glycosides, while the stems and seeds have phenolic compounds, terpenoids, and essential oils.<sup>(49,50)</sup>

The rhizomes have high concentrations of diosgenin (0.15-1.88%) and other bioactive compounds that provide strong anti-inflammatory,

antimicrobial, and immunomodulatory properties needed for treating different skin condition. Shaikh et al. (2022) found that *Costus speciosus* rhizome extracts demonstrated significant antimicrobial activity against skin pathogens including *Staphylococcus aureus*, *Escherichia coli*, *Pseudomonas aeruginosa*, and *Salmonella typhi*, with inhibition zones ranging from 9-38 mm, confirming its effectiveness in treating skin infections and inflammatory conditions.<sup>(47)</sup>

Al-Dhuayan (2025) found that *Costus speciosus* bioactive compounds including diosgenin and costunolide effectively inhibited TNF- $\alpha$ , COX enzymes, and interleukins (IL-1 $\beta$ , IL-6) by blocking NF- $\kappa$ B signaling pathways, demonstrating potent anti-inflammatory activity comparable to methotrexate in treating inflammatory skin disorders.<sup>(51)</sup>

Al-Attas et al. (2015) investigated sesquiterpene compounds from *Costus speciosus* and found potent anti-inflammatory activity. Their research showed that isolated compounds significantly decreased levels of inflammatory markers IL-1 $\beta$ , IL-6, TNF- $\alpha$ , PGE2, and COX-2, confirming the plant's effectiveness for treating inflammation-related conditions.<sup>(52)</sup>

#### 4. *Rubia Cordifolia:*



**Figure 5.** *Rubia cordifolia* (On left side) small leaves on stems (On right side) reddish-brown rhizomes & (on center) fruits of *Rubia Cordifolia*.<sup>(55)</sup>

**Synonym:** Rakta, Indian Madder, Manjistha<sup>(53)</sup>

**Biological source:** Roots and rhizomes of *Rubia cordifolia* L. (family: Rubiaceae; Genus:

*Rubia*).<sup>(54)</sup>

**Geographical source:** *R. cordifolia* is widely distributed in India, particularly high-altitude regions such as Mahabaleshwar, Amboli, and other parts of Maharashtra, as well as in Africa, tropical Asia including Malaysia, China, Japan, Sri Lanka, and tropical Australia.<sup>(55)</sup>

**Active constituents:** The roots of *Rubia cordifolia* contain diverse bioactive compounds, predominantly anthraquinones including alizarin, purpurin, munjistin, rubiadin, mollugin, xanthopurpurin, and techoquinone. Bicyclic hexapeptides from the RA-series, such as RA-V, RA-VII, and RA-XVIII, are also present, along with ruberythric acid and 6-hydroxyrubiadin. Phytochemical analyses further reveal alkaloids, flavonoids, saponins, glycosides, tannins, phenolic compounds, steroids, carbohydrates, and amino acids.<sup>(55,56)</sup>

Lin et al. (2025) found that *Rubia cordifolia* quinone derivatives (alizarin, purpurin, mollugin) exhibited excellent anti-inflammatory effects by reducing cytokine overexpression in TNF- $\alpha$ -activated keratinocytes and suppressing JAK1/STAT3 signaling pathways. Topical alizarin treatment significantly decreased

epidermal thickness from 116 to 78  $\mu\text{m}$  while effectively controlling keratinocyte hyperproliferation, confirming its therapeutic potential for inflammatory skin conditions.<sup>(57)</sup>

Zeng et al. (2023) demonstrated that *Rubia cordifolia* ethanol extract suppressed TNF- $\alpha$ , IL-1 $\beta$ , prostaglandin E2 (PGE2), and P65 (NF- $\kappa$ B) expression in adjuvant-induced arthritis rat models, with key compounds (alizarin, 6-hydroxyrubiadin, ruberythric acid, munjistin) showing strong binding affinities to inflammatory targets phospholipase A2 group IIA (PLA2G2A) and phospholipase A2 group X (PLA2G10).<sup>(58)</sup>

Oh et al. (2022) found that purpurin from *Rubia cordifolia* suppressed atopic dermatitis by inhibiting TNF- $\alpha$ /IFN- $\gamma$ -induced inflammatory responses in HaCaT cells, demonstrating significant anti-inflammatory and anti-atopic dermatitis activity through reduced cytokine production.<sup>(59)</sup>

##### 5. *Berberis Aristata:*



**Figure 6:** *Berberis aristata* (flowers with leaves and stem).<sup>(60)</sup>

**Synonym:** Daruharidra, Daru Haldi, Indian Barberry, Tree Turmeric, Chitra.<sup>(60)</sup>

**Biological source:** Root bark, stem bark, and rhizomes of *Berberis aristata* DC. (family: Berberidaceae; Genus: Berberis)<sup>(61)</sup>

**Geographical source:** *Berberis aristata* originates from Nepal and grows across India, Sri Lanka, Bhutan, and other parts of Asia. In India, it's found in sub-Himalayan regions and Nilgiri hills at 1000-3500 meters elevation, particularly in Himachal Pradesh, Uttarakhand, Jammu and Kashmir, Tamil Nadu, Madhya Pradesh, Uttar Pradesh, and Sikkim.<sup>(60)</sup>

**Active constituents:** *Berberis aristata* predominantly contains isoquinoline alkaloids, with berberine as the major bioactive constituent. Other alkaloids include epiberberine, palmatine, jatrorrhizine, columbamine, oxyberberine, berbamine, aromoline, karachine, taxilamine, and pakistanine. The plant also possesses flavonoids (quercetin), saponins, coumarins, glycosides, and polyphenols. Berberine, palmatine, and jatrorrhizine serve as the primary therapeutic alkaloids responsible for antimicrobial and anti-inflammatory activities.<sup>(62,63)</sup>

The root bark contains high concentrations of berberine and other isoquinoline alkaloids that confer potent anti-inflammatory, antimicrobial, and immunomodulatory effects suited for managing infected eczema and secondarily infected psoriatic lesions. Balkrishna et al. (2025) demonstrated these properties in imiquimod-induced psoriasis models, reporting significant reductions in ear punch weight, spleen weight, epidermal thickness, and pro-inflammatory cytokines (IL-8, TNF- $\alpha$ , IL-1 $\beta$ , IL-17RA, IL-23) through NF- $\kappa$ B pathway inhibition.<sup>(64)</sup>

Maskey et al. (2024) conducted studies of berberine for managing eczema caused by *Staphylococcus aureus*. Their work showed strong

anti-inflammatory activity by blocking *S. aureus* colonization and reducing eczema symptoms through anti-inflammatory effects and stopping mast cell degranulation. The study revealed berberine lowered inflammatory pathway genes and targeted key modulators in PI3K/AKT pathways, successfully reducing TNF- $\alpha$  release and inflammatory cell buildup.<sup>(65)</sup>

Goswami et al. (2024) demonstrated *Berberis aristata*'s potent antimicrobial activity against skin pathogens, showing strong inhibition zones against *Staphylococcus aureus* (27 mm), *E. coli* (24 mm), and other bacteria at 500  $\mu$ g/mL. The study also confirmed significant anti-inflammatory properties, attributed to alkaloids, phenolic compounds, and terpenoids, making it effective for treating infected eczema and secondarily infected psoriatic lesions.<sup>(66)</sup>

## 6. *Moringa Oleifera*:



**Figure 7:** *Moringa oleifera* : long pods (drumsticks) and leaves.<sup>(68)</sup>

**Synonym:** Drumstick tree, Horseradish tree, Benzolive tree, Kelor tree, Sajna<sup>(67)</sup>

**Biological source:** Biological source: Leaves, seeds, pods of *Moringa oleifera* Lam. (family: Moringaceae; genus: Moringa)<sup>(68)</sup>

**Geographical source:** *Moringa oleifera* originated in the sub-Himalayan foothills of northwest India, Pakistan, and Bangladesh, but

now grows widely throughout India, Southeast Asia (Philippines, Sri Lanka, Thailand, Malaysia, Myanmar), Pakistan, Singapore, the West Indies (Cuba, Jamaica), and parts of Africa including Nigeria.<sup>(69)</sup>

**Active constituents:** *Moringa oleifera* is rich in glucosinolates such as glucomoringin and its acetylated derivative, along with isothiocyanates including niazimicin and moringin. It contains flavonoids like quercetin, kaempferol, isoquercetin, and myricetin, phenolic acids (chlorogenic, caffeic, ferulic, gallic acids), alkaloids (marumosioid A and B), carotenoids ( $\beta$ -carotene, lutein), and essential fatty acids. These compounds contribute significantly to its antimicrobial, anti-inflammatory, antioxidant, and wound healing properties essential for managing skin diseases.<sup>(70)</sup>

Hengpratom et al. (2025) observed that *Moringa oleifera* leaf extract helped protect skin cells and supported tissue repair by increasing collagen and elastin while lowering enzymes that break down collagen. They also noted strong antioxidant activity at the tested concentrations without detectable cytotoxicity. Taken together, their findings suggest that *Moringa oleifera* leaf extract can contribute to wound healing by maintaining collagen integrity and limiting oxidative stress.<sup>(71)</sup>

Wolff et al. (2023) found that *Moringa* seed extract containing 38% isothiocyanate reduced skin inflammation in mouse ear edema models by 84% for IL-6 and 74% for MCP-1 levels. Their study showed dose-dependent anti-inflammatory effects through suppression of inflammatory cytokines and reduced ear swelling.<sup>(72)</sup>

Xiao et al. (2020) found that *Moringa oleifera* effectively treated atopic dermatitis by reducing pro-inflammatory cytokines, improving skin barrier function, and modulating Th17 cell responses. Their comprehensive review showed

decreased TSLP and inflammatory markers through immune regulation mechanisms.<sup>(73)</sup>

## CONCLUSION

Based on this review, it is clear that herbal medicines have significant potential for treating inflammatory skin conditions, particularly when doctors are unsure about the exact diagnosis. The six medicinal plants examined in this study—*Boswellia serrata*, *Wrightia tinctoria*, *Costus speciosus*, *Rubia cordifolia*, *Berberis aristata*, and *Moringa oleifera*—have demonstrated strong capabilities in reducing inflammation, fighting bacteria, and protecting against damage from free radicals. Since these herbs contain multiple active compounds working together, they can address different aspects of skin problems simultaneously, which proves very useful when a clear diagnosis is missing. Compared to conventional medicines, these herbal remedies appear to have fewer side effects and seem safer for longer-term use. However, at this point most of the evidence comes from laboratory and animal studies. To truly bring these treatments into regular pharmacy practice, researchers need to perform more rigorous clinical trials with actual patients. Future research should focus on improving the delivery and effectiveness of these herbal medicines for clinical use. This approach would successfully combine the knowledge from traditional medicine with modern science and dermatology practice.

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