The Effects of Alm Organic's Skin Wellness Tea & Hair Wellness Tea on Dermatological and Scalp Health: A Phytopharmacological Study

Abstract

Chronic dermatological conditions such as acne, eczema, and hair loss are commonly associated with hormonal imbalances, inflammation, microbial dysbiosis, and oxidative stress. While conventional treatments rely on topical corticosteroids, antibiotics, and synthetic shampoos, long-term use often leads to barrier dysfunction, antibiotic resistance, and dependency on pharmaceutical interventions.

This study evaluates the effects of Alm Organic's Skin Wellness Tea and Hair Wellness Tea in modulating sebum regulation, skin barrier function, inflammatory cytokine suppression, and scalp microcirculation over a three-month observational study. A cohort of 60 participants (30 per intervention group) experiencing mild to moderate acne, eczema, or hair loss were assessed for dermal hydration, transepidermal water loss (TEWL), sebum production, follicular density, and inflammatory biomarkers (IL-6, TNF-α, CRP levels).

Phytochemical analyses of the herbal ingredients identified polyphenols, flavonoids, tannins, triterpenoids, and saponins, which exhibit potent anti-inflammatory, antimicrobial, and antioxidant properties. Results indicate a 50% reduction in acne lesions, 40% improvement in eczema symptoms, and a 30% increase in hair follicle density, suggesting that Alm Organic's herbal formulations serve as effective adjunct therapies for skin and scalp health.

Introduction

Acne, Eczema, and Hair Loss: The Role of Inflammation and Microbial Dysbiosis

The human dermal and scalp microbiome plays a crucial role in maintaining skin barrier integrity, immune homeostasis, and follicular health. Imbalances in sebum production, cutaneous inflammation, and oxidative stress contribute to conditions such as acne vulgaris, atopic dermatitis (eczema), and androgenetic alopecia.

Conventional treatments include retinoids, corticosteroids, antifungal agents, and minoxidil-based formulations, which, while effective, pose risks such as dryness, irritation, microbial resistance, and dependency on pharmaceutical treatments. Herbal interventions offer bioactive plant compounds that modulate inflammatory pathways, regulate sebaceous activity, and enhance dermal microcirculation, making them a promising alternative for dermatological health.

This study investigates the effects of Alm Organic’s Skin Wellness Tea and Hair Wellness Tea in restoring dermal equilibrium, reducing inflammation, and enhancing scalp follicular function.

Materials & Methods

Study Design & Participants

A three-month, open-label, non-randomized clinical trial was conducted, enrolling 60 participants (ages 18-50)diagnosed with mild to moderate acne, eczema, or hair loss. Participants were divided into two groups:

Group 1 (30 participants): Skin Wellness Tea (assessed for effects on acne, eczema, and skin hydration)

Group 2 (30 participants): Hair Wellness Tea (evaluated for effects on follicular regeneration and scalp health)

Inclusion Criteria

Acne Severity Score (Leeds Grading Scale) between mild and moderate

Self-reported eczema with visible lesions

Scalp thinning and hair loss of non-autoimmune origin

Absence of ongoing dermatological or trichological treatments

Exclusion Criteria

Use of retinoids, corticosteroids, or oral antibiotics in the past 3 months

Autoimmune or genetic dermatological conditions (e.g., psoriasis, alopecia areata)

Pregnancy or hormonal contraceptive use

Severe allergic reactions to herbal components

Outcome Measures

Sebum production (Sebumeter readings)

Inflammation markers (IL-6, TNF-α, CRP levels)

Transepidermal water loss (TEWL) for skin hydration assessment

Hair follicle density (Trichoscopic imaging)

Self-reported symptom improvement scores

Herbal Composition & Mechanisms of Action

Skin Wellness Tea

Burdock Root (Arctium lappa): Contains lignans and inulin, known to regulate cutaneous microbiota and sebum overproduction, reducing acne severity.

Birch Leaves (Betula pendula): Exhibits diuretic and detoxifying effects, eliminating skin-associated toxins that contribute to eczema flare-ups.

Chamomile (Matricaria chamomilla): Rich in α-bisabolol and apigenin, compounds with anti-inflammatory and skin-soothing properties, helping to alleviate redness and irritation.

Buckthorn Bark (Rhamnus cathartica): Provides anthraquinones, which support gut-skin axis modulation, reducing systemic inflammation linked to dermatological conditions.

Yarrow (Achillea millefolium): Contains flavonoids and tannins, which exert astringent and antimicrobial effects, preventing P. acnes bacterial proliferation.

Hair Wellness Tea

Nettle Root (Urtica dioica): Contains β-sitosterol, an inhibitor of 5α-reductase, which reduces androgenic hair loss by modulating DHT levels.

Hellebore (Helleborus niger): Exhibits antioxidant and circulatory-enhancing effects, improving

scalp microvascular perfusion.

Burdock (Arctium lappa): Enhances keratinocyte proliferation, strengthening hair shaft integrity.

Birch Leaves (Betula pendula) & Walnut Leaves (Juglans regia): Provide polyphenols that reinforce follicular anchoring, reducing hair shedding.

Results & Discussion

Skin Wellness Tea Group

Acne lesion count reduced by 50% ($p < 0.01$)

Eczema symptoms improved by 40%, with decreased redness and irritation

Sebum levels decreased by 30%, reducing facial oiliness

TEWL reduced by 35%, improving epidermal barrier function

Hair Wellness Tea Group

Follicular density increased by 30% ($p < 0.05$)

Scalp inflammation reduced by 45%

Reduction in hair shedding by 38%

Improved scalp hydration by 25%

These findings suggest that bioactive compounds in Skin Wellness Tea and Hair Wellness Tea effectively support skin and scalp homeostasis through anti-inflammatory, antimicrobial, and follicular-enhancing mechanisms.

Conclusion & Future Directions

The study supports the use of herbal formulations as natural interventions for acne, eczema, and

hair loss, providing an alternative to pharmaceutical treatments with anti-inflammatory and follicular-stimulating properties. Future studies should include double-blind, placebo-controlled trials with genetic expression profiling and sebum metabolomics to further understand herbal pharmacodynamics in dermatology and trichology.