Ayurvedic management of Sun Allergy (Solar Urticaria): A single case study

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Abstract

Background: Sun allergy, also known as solar urticaria, is a rare but difficult-to-treat photo dermatosis,which is characterized by pruritic, erythematous, vesicular eruptions upon sun exposure, with few evidence-based solutions in modern practice.

Materials and Methods: This case examines a 75-year-old male presenting with classic symptoms of sun allergy and food intolerance, managed through an integrative personalized Ayurvedic protocol totreat Pitta Dosha imbalance, Aam (toxin) accumulation, and Srotasam Atipravruti. The Ayurvedic treatment protocol included polyherbal internal and external formulations used along with dietary and lifestyle modifications, with monthly follow-ups for assessment and modification in treatment as per requirement.

Results: Progressive improvement was noted within a month, and the next follow-up showed a reduction in symptom severity, like redness, itching, and burning subsided, ulcerated lesions healed, and sun tolerance improved along with restoration of well-being by six months and maintained through additional follow-up.

Conclusion: Personalized Ayurvedic management targeting Dosha balance and Strotas clearing, and Ama (toxin) detoxification provided significant relief in the case of sun allergy.

Key words: Sun Allergy, Solar urticaria, photo dermatosis, sun intolerance, sun exposure, heat rash, Ayurvedic treatment.

1. Introduction

Rare photo dermatosis characterized by immediate hypersensitivity reactions to ultraviolet (UV) and visible light is known as Solar urticaria, also known as sun allergy. Individuals suffering from sun allergies will experience symptoms such as erythema, wheels, pruritus, and a burning sensation, with vesicles sometimes forming on sun-exposed areas, which can disrupt daily activities and quality of life. The rapid histamine release, mast cell degranulation, and immune hyper-reactivity, often associated with food or environmental triggers, are the pathogenesis (Samprapti) of the sun allergy. Modern treatment, like strict photoprotection, antihistamines, and, in some cases, the use of immunosuppressants, can be used in cases of sun allergy. However, this modern treatment provides temporary relief and carries various adverse effects, particularly in elderly patients. As per Ayurveda, Solar urticaria is understood as an imbalance of Pitta Dosha, particularly when Raktavaha Strotas (blood channels) and Rasavaha Strotas

(plasma channels) are involved. Aggravated Pitta, combined with impaired digestive fire (Agni Mandya) and accumulation of Ama (toxins from undigested food), predisposes individuals to hyper-reactivity of the skin and immune system. Aahar- Asatmya (food incompatibility) and external factors such as excessive sun exposure further precipitate flare-ups of the solar urticaria. The systemic imbalance manifestsas erythema, itching, burning, and vesicular eruptions, and metabolically as poor appetite (Aruchi), malaise (Shrama), and sleep disturbances. As per Ayurveda Dosha pacification, i.e., targeting Pitta to reduce inflammatory and photosensitive reactions, channels detoxification (Stroto Shodhana) by restoring normal flow in Raktavaha, Rasavaha, and Annavaha channels to prevent hyperactivity. Along with this, clearing accumulated toxins that trigger systemic allergic responses is also the line of treatment used in Ayurveda. For strengthening tissues and for preventing recurrence, modulating the immune response is also done by the use of Rasayana. Ayurveda also focuses on diet and lifestyle modifications by avoiding triggers such as incompatible foods, excessive sun, and stressful environmental factors.While modern approaches focus on suppressing symptoms, Ayurveda aims at root-cause treatment, restoring homeostasis.

2. Case Presentation

2.1 Patient Details

- **Patient ID:** Case 1- Male
- **Age/Sex:** 75 years / Male
- **Date of Case Initiation:** 30/05/2022
- **Treating Institution:** Institute of Applied Food Allergy, India
- **Consent:** Written informed consent for case publication was obtained from the patient.

2.2 Chief Complaints

- Two months of facial and neck erythema, rashes, severe itching, burning, cracks, and oozing on sun exposure.
- Inability to go outdoors in daylight.
- Rapid flare-up after coffee or buckwheat intake.
- Other issues like HTN, weight loss, generalized itching, scaling, and burning.
- Poor appetite and sleep disturbances.

2.3 Diagnosis

Modern: Solar urticaria (Sun Allergy) with food intolerance (buckwheat protein).

Ayurvedic: Pitta Dosha imbalance, Srotasam Atipravruti (hyperactivity of Raktavaha, Rasavaha, Annavaha Strotas, Aahar- Asatmyata (food intolerance).

2.4 Triggers

Sun exposure, certain foods (coffee, buckwheat), and possibly emotional and climatic factors.

3. Methods

3.1 Intervention Protocol

A structured schedule of internal and external Ayurvedic medicines, revised on regular monthly follow-up, all prepared as per the IAFA clinical protocol.

3.2 Ayurvedic Treatment Protocol

Table no. 1

Date	Category	Internal Medication	External Medication	Purpose
30-05-2022	Initial	Aahar Amrutham Ras, Pitpapra Capsule, IAFA Skin Detox Tablet, IAFA Skin Beau Tea, Triphala Capsule	IAFA 333 Cream for L/A (BID/PRN)	Initiation of Pitta pacification and Ama Pachana (toxin detoxification), regulation of gut-immune axis to reduce inflammatory load, support detoxification pathways, initiate skin barrier repair, and modulation of hypersensitivity response.
27-06-2022	Follow-up 1	Mouktik Pishti, Haridra Khand	Pratimarsha Nasya Karma with Nasya Yoga Grutham, IAFA Nasal All Clear X	Nasya Karma is given here as a patient complaint of nasal allergy during follow-up. Maintenance of immunomodulation, local nasal

			Drops	mucosal stabilization, support upper respiratory tract immune homeostasis, enhance Prana Vaha Strotas patency, and reduce allergic reactivity through local therapy.
23-07-2022	Follow-up 2	Aahar Amrutham Ras, Pitpapra Capsule, IAFA Skin Detox Tablet, IAFA Skin Beau Tea, Triphala Capsule	IAFA 333 Cream for L/A	Continuing Pitta, Kapha balance, reduces nasal inflammation, strengthens local tissue tolerance, and supports the mucosal and skin barrier to lower sensitivity to sun urticaria.
02-09-2022	Follow-up 3	Aahar Amrutham Ras, Pitpapra Capsule, Durva Capsule, Mouktik Pishti, Haridrakhand, IAFA Skin Detox Tablet, IAFA Skin Beau Tea, Triphala Capsule, Ashwagandha Capsule	IAFA 333 Cream	Provide Rasayana supports long-term immunity, reinforces systemic anti-inflammatory mechanisms, enhances stress tolerance and mucosal integrity, maintains previous therapeutic gains, and prevents recurrence of solar urticaria.

4. Results

4.1 Monthly Progress and Clinical Status

Table no. 2

Date	Clinical Status
30-05-2022	Severe allergies, rashes, flare-up on exposure to sun, coffee, unable to go in sunlight, food protein intolerance, i.e., buckwheat
27-06-2022	Marked improvement, cracks and sores healed, flared up minimally, appetite and sleep improved
23-07-2022	Much better, minimal flare-ups, rare episodes, and general condition continuously improving.

02-09-2022	Occasional mild itching, some sores, tolerates more sun, overall normalcy restored.
02-12-2022	Normalcy was restored in the patient, no longer suffering from sun allergy or any skin issues.

Symptoms	**Before Treatment**	**After 6 Months of Treatment**
Redness, rashes, tingling sensation	Severe, daily	No symptoms
Ulcers or sores with oozing	Frequent and non-healing	Healed
Ability to go outside	Impossible	Outdoor activity is possible with care
Itching, papular rash	Present, widespread	Rare, only with major triggers.
Burning sensation	Persistent	Occasional
Appetite and weight loss	Ongoing loss, poor appetite	Weight stable, good appetite
Sleep, malaise	Poor, low energy	Normalized, good energy

5. Discussion

Sun allergy or sun urticaria or photo-induced dermatosis represents immune dysregulation, oxidative stress, and skin barrier dysfunction. In Ayurveda, such conditions correlate with Pitta aggravation, especially Bhrajaka Pitta, accompanied by Ama accumulation and Rakta Dushti, leading to hypersensitivity and inflammatory responses. Chronic cases often show Vata and Kapha involvement, manifesting as itching, dryness, and recurrent lesions. The therapeutic approach in this case was planned to pacify Pitta, eliminate Ama, purify Rakta, and enhance Rasayana support to restore immune tolerance and normal skin. The Ayurvedic therapeutic regimen combined internal and external formulations targeting the gut–immune–skin axis. Internal formulations like Aahar Amrutham Ras, Pitpapra Capsule, IAFA Skin Detox Tablet, and IAFA Skin Beau Tea were used to detoxify, pacify aggravated Pitta, purify Rakta, and provide Rasayana support.

External application of IAFA 333 Cream was aimed at reducing local inflammation, itching, and erythema.

Table 3. Key Herbs in IAFA 333 Cream and Their Mode of Action

Herbs	**Classical Action**	**Modern Pharmacological Action**

Pongamia pinnata	Kusthaghna, Pitta-Kapha Shamaka	Anti-inflammatory, antioxidant, photoprotective
Wrightia tinctoria	Tvachya, Vrana Ropana	Immunomodulatory, anti-inflammatory
Albizia lebbeck	Raktashodhaka, antihistaminic	Mast cell stabilizer, anti-allergic
Azadirachta indica	Pitta shamaka, Raktashodhaka	Antibacterial, antifungal, immunomodulatory

These herbs help to reduce local inflammation, modulate immune activity, and restore the protective skin barrier, thereby lowering UV-triggered allergic responses.

Table 4. Internal Formulations and Their Actions

Formulation	Key Ingredients	Primary Actions
Aahar Amrutham Ras	*Euphorbia thymifolia, Vitex negundo, Aegle marmelos, Phyllanthus niruri, Boerhavia diffusa*	Ama Pachana, gut detox, Pitta pacification, liver support
Pitpapra Capsule	*Fumaria indica*	Blood purification, immune modulation, Pitta pacification
IAFA Skin Detox Tablet	*Adhatoda vasica, Melia azedarach, Solanum surattense, Acacia catechu, Embelia ribes, Tinospora cordifolia, Triphala*	Detoxification, Rakta Shodhana, immune balance, anti-inflammatory
IAFA Skin Beau Tea	*Prunus cerasoides, Bacopa monnieri, Hemidesmus indicus, Crocus sativus, Psidium guajava, Triphala*	Rasayana support, antioxidant effect, barrier strengthening, Pitta balance

These polyherbal combinations offer a multi-targeted approach by regulating gut immunity, lowering systemic inflammation, and restoring skin homeostasis. Modern pharmacological studies have shown that many of these herbs possess mast cell-stabilizing, antioxidant, anti-histaminic, and immunomodulatory properties, which directly address the pathophysiological mechanisms of photoallergic conditions.

Along with this, a strict diet and lifestyle regimen (Pathya-Apathya) was followed to enhance treatment efficacy. Light and cooling diet (green gram, boiled vegetables, ghee in moderation), plenty of fluids, coconut water, coriander, fennel, celery juice, and avoiding midday sun exposure are mentioned as Pathya. Spicy, sour, fermented foods, alcohol, caffeine, irregular sleep, heat exposure, and emotional stress are considered Apathya.

To reduce stress-mediated immune triggers and maintain Doshic balance, yoga and pranayama were advised, like Anulom Vilom and Sheetali Pranayama for Pitta pacification and calming effect. Bhramari Pranayama to reduce systemic stress and inflammatory mediators. Tadasana, Marjari Asana, and Shavasana for improving circulation, lymphatic drainage, and relaxation.

As per the patient's observation, regular intake of fresh celery juice has acted as a "saving herb" during episodes of sun allergy. The patient reported noticeable relief from itching, redness, and burning sensations after daily consumption of celery juice in the morning. Its anti-inflammatory action, attributed to bioactive compounds like apigenin and luteolin, appears to calm the skin's immune response and reduce UV-triggered flare-ups. In addition, its rich antioxidant profile and natural hydration support may further protect the skin barrier, helping to minimize sensitivity and improve overall skin tolerance to sunlight.

Clinical Interpretation

This case highlights how targeted Ayurvedic management with Pitta pacification, Rakta Shodhana, Ama Pachana, and Rasayana therapy can effectively reduce photosensitivity, itching, and erythema while improving sun tolerance. By integrating classical Ayurvedic concepts with modern immunopharmacology, the treatment achieved promising clinical improvement without adverse effects.Such outcomes reveal the potential of Ayurvedic herbal formulations in managing chronic allergic dermatoses through multi-system regulation rather than symptomatic suppression.

6. Conclusion

This single case study highlights the effectiveness of an Ayurvedic integrative approach in managing chronic sun allergy through immune modulation, anti-inflammatory activity, and barrier support. Herbal formulations containing *Pongamia pinnata, Wrightia tinctoria, Azadirachta indica, Tinospora cordifolia, and Triphala*, combined with Rasayana therapy, significantly reduced symptoms and improved skin tolerance to sunlight. Lifestyle modification with Pathya–Apathya, Yoga, and Pranayama further supported immune resilience and reduced recurrence. These results suggest that Ayurvedic therapy may offer a safe, sustainable, non-steroidal option for sun allergy management. Further clinical studies with larger cohorts are warranted to validate these outcomes.

Ethical Approval and Patient Consent

Written informed consent was obtained from the patient (or guardians in pediatric cases) for publication of the case details. No invasive procedures beyond standard care were performed. Ethical standards of IAFA Clinical Governance were adhered to.

Conflict of Interest

The authors declare no conflicts of interest . This manuscript is a non -sponsored academic report from IAFA® □'s Ayurvedic clinical practice.

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