

# AYURVEDIC MANAGEMENT OF LICHEN PLANUS IN A PEDIATRIC PATIENT: A SINGLE CASE STUDY

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## Abstract

Lichen planus (LP) is a chronic inflammatory skin disorder characterized by pruritic, violaceous, polygonal papules that can significantly affect the quality of life. Conventional management with corticosteroids and immunosuppressive agents often provides only temporary relief and is associated with adverse effects. Ayurveda describes *Kushtha* as a broad category of skin disorders resulting from *Doṣa-duṣya* imbalance, particularly of *Vāta* and *Kapha* and emphasizes *Śodhana* and *Śamana* therapies for its management. The present case report describes the successful Ayurvedic management of a 9-year-old male child diagnosed with Lichen planus. The treatment protocol included *Pañcakarma* procedures such as *Snehapāna*, *Abhyanga*, *Swedana* and *Virechana*, followed by internal *Shamana aushadhi* like *Manjishthādi Kvātha*, *Haridrakhaṇḍa* and *Arogya Vardhinī Vaḥī*. Marked improvement was observed

in itching, pigmentation, and lesion size within four weeks, with complete remission after two months of continued therapy. No recurrence or adverse effects were reported during follow-up. This case suggests that a classical *Kushtha cikitsā* approach, combining *Śodhana* and *Rasāyana* therapy can provide safe and sustained results in Lichen planus management.

## KEYWORDS

Lichen planus, *Kushtha*, *Virechana karma*, *Manjishthādi kvātha*, *Haridrakhaṇḍa*, Ayurveda.

## 1. INTRODUCTION

Lichen planus (LP) is a chronic inflammatory, papulosquamous disorder of the skin and mucous membranes characterized by pruritic, polygonal, flat-topped, violaceous papules. It affects both genders and all age groups, although its occurrence in children is relatively rare, accounting for about 2–3% of total LP cases. [1] The disease primarily

involves an autoimmune T-cell-mediated reaction against epidermal basal cells, resulting in chronic inflammation and keratinocyte apoptosis. Lesions may appear on the wrists, ankles, oral mucosa, genitalia, or scalp, often accompanied by intense itching and post-inflammatory hyperpigmentation. [2] Despite being benign and non-infectious, Lichen planus is psychologically distressing and cosmetically disfiguring, particularly in children.

The etiologic of LP is multifactorial, involving genetic predisposition, environmental triggers, infections and drugs such as antimalarials, beta-blockers and nonsteroidal anti-inflammatory agents. Stress and immune dysregulation are also known to precipitate or aggravate the condition. Conventional dermatological management relies mainly on corticosteroids, antihistamines, retinoids and immunosuppressive agents such as cyclosporine and azathioprine. Although these therapies provide temporary symptomatic relief, relapse after discontinuation is common and long-term use may cause adverse effects including atrophy, telangiectasia and systemic complications. [3] This highlights the need for a safe, holistic and sustainable therapeutic approach that targets both symptom control and systemic balance.

From the Ayurvedic perspective, skin disorders are collectively classified under *Kushtha*, a group of conditions arising due to the vitiation of *Tridoṣa* and vitiation of *Rakta dhātu* (the blood tissue). *Lichen planus* closely resembles *Kṣudra Kushtha*, which is mainly caused by the vitiation of *Vāta* and

*Kapha doṣa*, leading to *Kandu* (itching), *Śyāva varṇa* (bluish-black discoloration), *Rūkṣata* (dryness) and *Rajih* (linear lesions). The *Doṣa-duṣya sammūrchana* (interaction of doṣa with dhātu) involving *Rasa* and *Rakta dhātu* results in the manifestation of various cutaneous lesions. Classical Ayurvedic texts such as *Caraka Saṃhitā* and *Suśruta Saṃhitā* emphasize the combined use of *Śodhana* (biopurificatory procedures) and *Śamana* (pacifying medications) to achieve *Doṣa-prasamana* and *Rakta-prasādana*, thereby correcting the internal pathology rather than merely suppressing symptoms. [4]

Ayurvedic management of *Kushtha* primarily involves *Virechana karma* (therapeutic purgation) and *Raktaprasādaka* herbs like *Manjishthā* (*Rubia cordifolia*), *Nimba* (*Azadirachta indica*), and *Haridrā* (*Curcuma longa*), followed by *Rasāyana* formulations to promote long-term rejuvenation and prevent recurrence. *Pañcakarma* therapies help eliminate vitiated *Doṣa* from the body, while internal medicines provide systemic support for tissue regeneration. Previous studies and case reports have highlighted the efficacy of Ayurvedic therapies in various dermatological conditions, including psoriasis, eczema, and vitiligo. However, very few reports are available on Ayurvedic management of childhood Lichen planus, emphasizing the significance of this case in demonstrating safe and effective treatment outcomes through integrative classical principles.

This single case study documents the comprehensive Ayurvedic management of a 9-year-old male child diagnosed with Lichen planus. The therapeutic plan included *Pañcakarma* procedures such as *Snehapāna*, *Abhyanga*, *Swedana* and *Virechana karma* followed by internal *Shamana aushadhi* including *Manjishthādi Kvātha*, *Haridrakhaṇḍa* and *Arogya Vardhinī Vaṭī*. The patient demonstrated remarkable clinical improvement without any adverse effects, supporting the classical approach of *Kushtha cikitsā* as a safe and sustainable alternative in dermatological practice.

## 2. PATIENT INFORMATION

A 9-year-old male child presented to the outpatient department of Ayurveda with complaints of multiple, itchy, dark-coloured, flat, elevated skin lesions over both forearms, neck and back for the past four months. The lesions were gradually progressive and associated with intense itching, dryness and discoloration. The child's parents reported that the condition initially began with a few small papules on the wrist, which later spread to other areas of the body. There was no history of fever, trauma, or any known drug allergy preceding the eruption. The patient had no family history of similar dermatological conditions or autoimmune disorders.

The child had previously undergone treatment from a dermatologist and had received topical corticosteroids and antihistamines for approximately one month, which provided

temporary relief; however, the lesions recurred after discontinuation of the medication. The patient's appetite was moderate, bowel movements were regular, and sleep was sound. No significant systemic illness or past history of major medical disorders was reported.

The patient's *Āhāra-vihāra* (diet and lifestyle) pattern revealed frequent consumption of sour, spicy and junk foods, irregular meal timing and excessive screen exposure, which are considered *Kushtha-nidāna* (causative factors) according to Ayurveda. Based on the clinical features and history, the case was provisionally diagnosed as Lichen planus (LP) in modern parlance and correlated to *Kṣudra Kushtha* in Ayurveda, predominantly of *Vāta-Kapha* origin.

## 3. CLINICAL FINDINGS

On physical examination, multiple discrete and confluent, flat-topped, violaceous papules and plaques were observed over the flexor surfaces of both forearms, neck and upper back. The lesions were polygonal in shape with mild scaling and hyperpigmented margins. The affected areas showed mild lichenification due to chronic scratching, and excoriation marks were present in a few sites. No oozing, ulceration or secondary infection was evident. Mucous membranes, scalp and nails were unaffected.

The lesions were associated with moderate-to-severe itching, which increased during night hours and after sweating. The patient also reported mild

burning sensation and dryness of the skin. Palpation revealed thickened, rough skin with minimal tenderness. Systemic examination revealed no abnormalities in cardiovascular, respiratory or gastrointestinal systems.

From an Ayurvedic perspective, the patient exhibited classical features of *Kṣudra Kushtha* such as *Kandu* (itching), *Śyāva varṇa* (blackish discoloration), *Rūkṣata* (roughness) and *Rajih* (linear raised lesions). The predominant *Doṣa* involvement was of *Vāta* and *Kapha* with *Rakta duṣṭi* (vitiation of blood tissue) as a principal pathogenic factor. The overall *Doṣa-duṣya sammūrchana* indicated *Vāta-Kapha pradhāna Kushtha* with *Rakta dhātu* involvement.

#### 4. DIAGNOSTIC ASSESSMENT

The diagnosis of Lichen planus (LP) was made primarily on the basis of clinical examination, which revealed characteristic polygonal, flat-topped, violaceous papules and plaques with itching and post-inflammatory hyperpigmentation. The distribution of lesions over flexural areas and the chronic course further supported the diagnosis. The patient's prior dermatological evaluation had also confirmed LP through clinical findings and no biopsy was repeated as the morphology was classical and unambiguous.

Routine haematological investigations, including complete blood count, liver and renal function tests, fasting blood sugar and urine analysis were within

normal limits. No evidence of systemic disease or infection was observed.

From an Ayurvedic standpoint, based on the predominant signs of *Kandu* (itching), *Rūkṣata* (dryness), *Śyāva varṇa* (hyperpigmentation) and *Rajih* (raised linear lesions) the condition was diagnosed as *Kṣudra Kushtha*, a subtype of *Kushtha Roga* caused by vitiation of *Vāta* and *Kapha doṣa*, along with vitiation of *Rakta dhātu*. The pathogenesis (*Samprāpti*) involves *Doṣa-duṣya sammūrchana*, wherein aggravated *Vāta* and *Kapha* obstruct the *Rakta* channels, leading to dryness, discoloration and itching.

Differential diagnoses considered at the initial stage included eczema (*Vicharchikā*), psoriasis (*Ekakuṣṭha*) and pityriasis rosea, however, the absence of silvery scaling, erythematous base, or herald patch excluded these conditions.

Thus, the combined clinical and Ayurvedic evaluation confirmed the diagnosis of *Vāta-Kapha pradhāna Kṣudra Kushtha* correlated with Lichen planus.

#### 5. THERAPEUTIC INTERVENTION

##### 5.1 Pūrvakarma

Prior to Śodhana, Snehapāna was administered with Pañcatiktaka Ghṛta for four consecutive days (21–24 February 2024). The dose was gradually increased from 30 ml to 60 ml twice daily, given on an empty stomach with lukewarm milk. During this period the patient was advised a light and easily

digestible diet. Signs of proper Snehana (Samyak Snehana lakṣaṇa) such as softness of skin and lightness of the body were observed.

Subsequently, Sarvāṅga Abhyāṅga was performed using Balataila, followed by Bāṣpa Swedana with Nirgundī patra on 25 and 26 February 2024 to facilitate mobilization of vitiated Doṣa toward the gastrointestinal tract.

### 5.2 Pradhāna Karma

Virecana karma was performed on 27 February 2024 as the principal purification therapy. The patient was administered Dīndāyāl Cūrṇa (2 g) along with Eranda Sneha (30 ml) in the morning, followed by lukewarm water. Adequate purgation was achieved, and features of Samyak Virecana were observed.

### 5.3 Paścāt Karma

Following Virecana, Saṃsarjana Karma was advised for three days (28 February – 1 March 2024). The diet was gradually progressed from Manda to Peya and then to Yavāgu to restore digestive strength and Agni.

### 5.4 Internal Medicines

After completion of Śodhana therapy, internal medications were initiated from 28 February 2024.

Manjiṣṭhādi Kvātha was administered in a dose of 40 ml twice daily before food with lukewarm water and was continued for two months during the follow-up period.

Haridrākhaṇḍa was prescribed in a dose of 1 g twice daily after food with lukewarm water and was continued for two months.

Nimba Tvak Kvātha was given in a dose of 10 g twice daily before meals with lukewarm water and was continued during the follow-up period.

The patient was reviewed at 15-day intervals. No adverse drug reactions were observed during the treatment and follow-up period.

### Pathya and Apathya

The patient was advised to follow a strict Pathya regimen including laghu āhāra such as mudga, śaṣṭika śālī, and freshly prepared meals. Sour, spicy, fermented foods, incompatible food combinations, day sleep, and scratching of lesions were strictly restricted.

## 6. FOLLOW-UP AND OUTCOMES

The patient was followed up at 15-day intervals after completion of in-patient therapy. Clinical assessment was carried out based on pruritus severity, lesion morphology and pigmentation status as documented in Table 2.

During the follow-up period progressive improvement was observed in subjective symptoms as well as objective parameters. The pruritus score showed marked reduction within the first two weeks and lesion flattening was evident by the end of the first month.

At the completion of two months of therapy, near-complete resolution of active lesions was achieved

with only minimal residual pigmentation. No new lesions were noted during the treatment or follow-up period.

The patient tolerated the treatment well without any adverse drug reactions. Sustained remission was observed throughout the follow-up duration, indicating the effectiveness and safety of the adopted therapeutic approach.

**Table Title:**

Table 1. Severity Of Pruritus Scale [5]

Table 2. Objective summary of parameters before and after Ayurvedic management of lichen planus

**Figure Caption:**

Figure 1 Represents the patient outcome of before treatment photographs.

Figure 2 Represents the patient outcome of after treatment photographs.

## 7. DISCUSSION

Lichen planus is an immune-mediated inflammatory disorder affecting the skin and mucous membranes. In Ayurveda, the clinical presentation of pruritic, hyperpigmented, raised papules with dryness can be correlated with Vāta-Kapha pradhāna Kṣudra Kuṣṭha involving Rakta duṣṭi. The presence of Kandu, Śyāva varṇa, and Rūkṣatā indicates predominant involvement of Vāta and Kapha Doṣa along with vitiation of Rakta dhātu.

The pathogenesis in this case can be understood as Nidāna sevana leading to Agnimandya and formation of Āma, which further vitiates Vāta and

Kapha Doṣa. These vitiated Doṣa localize in Tvak and Rakta dhātu (Sthānasamśraya), resulting in inflammatory papular lesions. Therefore, treatment was directed toward Doṣa nirharāṇa and Rakta prasādana.

Line of Treatment:

Poorva karma

*Snehapāna*: Administered *Pañcīkta Ghr̥ta* [6] to liquefy doshas and facilitate their mobilization. *Ghr̥ta* enhances digestion, absorption, and delivery of active ingredients to target tissues. The lipophilic nature of *Ghr̥ta* improves bioavailability of herbal compounds.

*Abhyanga*: Prepares the body for *Virecana* by stimulating skin absorption, enhancing blood circulation, and facilitating delivery of nutrients to deeper tissues including muscles, fat, and bone marrow [7]. *Abhyanga* also promotes fluid drainage and skin health.

*Bāṣpa Swedana*: Steam therapy was used to open channels, soften tissues, and enhance toxin elimination in preparation for *Virecana* [8].

Pradhāna karma

*Virecana karma*: Therapeutic purgation was performed to eliminate toxins and restore dosha balance. *Virecana* addresses both the systemic and localized pathology associated with lichen planus [9].

Paścāt karma

*Samsarjana krama*: Followed to gradually restore digestive capacity and systemic balance.

*Śamāna aushadha*: Specific herbal formulations were administered for dosha pacification and symptom management:

Manjiṣṭhādi Kvātha was selected primarily for its Raktaprasādaka effect. Since Rakta duṣṭi contributes to hyperpigmentation and inflammatory changes, Manjiṣṭhā supports normalization of skin color and reduces inflammatory infiltration. Its action is directly relevant to the pathological involvement of Rakta dhātu in Lichen planus.

Haridrākhaṇḍa was included considering the autoimmune and inflammatory nature of the disease. Haridrā possesses immunomodulatory and anti-inflammatory properties, which help reduce pruritus and control local inflammatory response. Its Kaṇḍughna action specifically addresses the dominant symptom of itching observed in this case.

Nimba Tvak Kvātha was administered due to its Kuṣṭhaghna and Raktashodhaka properties. It assists in purification of Rakta and pacification of Kapha Doṣa, thereby supporting resolution of lesions and preventing secondary infection. Its action complements the Rakta-targeted therapy initiated through Virecana.

*Manjiṣṭhādi Kwātha* [10] – *Kaphavātahara, Kuṣṭhaghna*

*Haridrākhaṇḍa* [11] – *Kaphavātahara, Vraṇaśodhana*

*Nimba Tvak Kwātha* [12] – *Kaphavātahara, Kaṇḍughna, Vraṇaśodhana and Ropana*

The gradual reduction in itching, flattening of papules, and improvement in pigmentation observed during follow-up indicate effective Doṣa-śamana and correction of Rakta duṣṭi. The absence of recurrence during the follow-up period further suggests that addressing the underlying pathogenesis provides sustained remission rather than temporary symptomatic relief.

Thus, this case demonstrates that a structured approach combining Śodhana and targeted Śamana therapy can be effective in the management of paediatric Lichen planus.

In paediatric patients, long-term use of corticosteroids and immunosuppressive agents may be associated with potential adverse effects. Therefore, a safe and well-tolerated therapeutic approach is particularly important in this age group. The absence of adverse reactions and sustained improvement observed in this paediatric case further supports the safety of the adopted Ayurvedic regimen.

## 8. CONCLUSION

This single case study highlights the successful Ayurvedic management of Lichen planus in a child through a holistic approach combining Śodhana and Śamana therapies. The integrated use of *Virechana karma* for systemic purification and internal *Raktaprasādaka* and *Rasāyana* medicines led to

marked improvement in itching, pigmentation, and lesion morphology without adverse effects or

recurrence. The outcome suggests that *Kushtha cikitsā* principles based on *Doṣa-duṣya sammūrchana* and *Rakta-śodhana* are highly effective in chronic dermatological disorders such as Lichen planus.

This case further supports that Ayurvedic therapies can offer a safe, sustainable, and patient-friendly alternative to long-term corticosteroid and immunosuppressive treatments, particularly in pediatric patients. However, larger clinical studies are required to establish the efficacy and mechanism of Ayurvedic management in Lichen planus on a broader scale.

## 9. PATIENT'S PERSPECTIVE

The child's guardian reported that before treatment, the itching and skin discoloration caused significant discomfort and emotional distress. After starting Ayurvedic therapy, visible improvement was noticed within two weeks, and by the end of the treatment, the lesions had almost disappeared. The guardian expressed satisfaction and gratitude for the Ayurvedic approach, noting that the child regained confidence, better sleep, and overall well-being without any side effects.

## TABLE

**Table 1. Severity Of Pruritus Scale**

Score	Grade	Definition
0	None	No Itching
1	Mild	Occasional, Slight itching/ Scratching
2	Moderate	Constant or intermittent itching/ Scratching which is not disturbing sleep
3	Severe	Bothersome itching/ Scratching which is disturbing sleep

**Table 2. Objective summary of parameters before and after Ayurvedic management of lichen planus**

Symptoms	Before treatment	Sodhana karma after treatment
Brown peplular pathches	++	+
Itching	++	+
Grade scale for itching	2	0

## FIGURES

### Figure Caption:

**Figure 1 Represents the patient outcome of before treatment photographs.**

**BEFORE TREATMENT (Date:21/2/24)**



### Figure Caption:

**Figure 2 Represents the patient outcome of after treatment photographs.**

**AFTER TREATMENT (Date:2/3/24)**



## DECLARATION

### Informed Consent:

Written permission for the publication of this case study was obtained from the patient.

### Patient Consent:

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patients have given their consent for their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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There is no conflict of interest.

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The contributions were made by each author to the research and preparation of this manuscript and all authors have read and approved the final version of the manuscript and approved its content, and agreed with the order of authorship.

## Declaration Of Generative Ai and Ai-Assisted Technologies in The Writing Process:

Statement: During the preparation of this work, we have not used any tool/service or AI. We have only used basic tools, such as the Grammarly app for checking grammar and we have nothing to disclose.

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