

Role of Local Application of Gairik in Oral Lichen Planus - A Single Case Study

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Oral Lichen Planus (OLP) is a chronic inflammatory condition that affects the buccal mucosa.[1] Technically, lichen planus can develop on your skin or anywhere you have mucosa. (Mucosa is the thin layer of tissue that lines certain body parts, like your nose, mouth, stomach and lungs.) But when lichen planus appears in your mouth, it's called oral lichen planus. While Ayurveda does not directly describe lichen planus, it is often associated with a condition known as Charma Kushtha. Charma Kushtha is classified as one of the eighteen types of Kushtha (skin diseases) in the Charaka Samhita (Chikitsa Sthana), and is believed to be caused by an imbalance in the Kapha and Vata doshas. and manifesting the clinical symptoms. Due to vitiation of Doshas and Dhatus clinical symptoms such as constriction of channels brownish or blackish discoloration is seen. Charma Kushta (Lichen Planus) is dominated by Vata Kapha Dosha together with Psycho stress factors (Mano Vikaras) resulting in deterioration of Rasa, Rakta, Twak, and Laseeka. The objective of the current study was to evaluate the impact of Ayurvedic treatment on oral lichen planus.

Keywords: Ayurveda, Charma Kushtha, Kushthachikitsa, Lichen Planus

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Introduction

Oral Lichen Planus (OLP) is a chronic inflammatory disease that affects the mucous membranes of the oral cavity.[1] The exact cause of oral lichen planus is not fully understood, but it is believed to be an immune-mediated condition. T-lymphocytes (especially CD8+ cytotoxic T cells) infiltrate the basal layer of the oral epithelium, attacking basal keratinocytes which may be perceived as foreign due to genetic, infectious, or chemical triggers.[2] Potential triggers are genetic predisposition, stress, dental restorative materials (e.g., amalgam), drugs (e.g., NSAIDs, beta-blockers, antimalarials), infections (e.g., Hepatitis C, HPV), Autoimmune associations (e.g., lupus, Sjögren's syndrome).[3] OLP most commonly affects middle-aged women, and often presents bilaterally and symmetrically in the oral mucosa. Common sites are buccal mucosa, tongue, gingiva, palate, lips. Reticular, Erosive, Atrophic, bullous, papular are the different forms of oral lichen planus. The lesions of LP pigmentosa are bilateral and involve sun-exposed areas which are mostly seen in Indians and darker-skinned individuals.[4] Conversely, the lesion of LP pigmentosa inversus typically affects the intertriginous and flexural areas which are mostly seen in whites and lighter-skinned Asians.[5]

Management of the Lichen planus (LP) includes the use of systemic corticosteroid therapy, topical steroid creams and ointments, and oral antihistamines. The prognosis for life has improved dramatically from modern management but still, the response to the treatment is not good enough to prevent reproduce of a skin lesion in LP. In *Ayurveda*, most skin diseases are collectively described under a broad heading of *Kushta Roga* (~skin disease). According to *Ayurveda*, any disease will manifest when there is an imbalance between three *Dosha* i.e. *Vata*, *Pitta*, and *Kaphadosha* in the body. These vitiated *Doshas* affect the basic tissue of the body called *Dhatu* resulting in the manifestation of various diseases. In *Ayurveda* skin disease is considered under *Kushtharoga*, due to the similarity in signs and symptoms of this lichen planus mostly resemble with *Charmakushtha* which is a type of *Kshudrakushtha*. [6] *Charma Kushtha* is dominant of *Vata* and *Kaphadosha*, these *Dosha* also vitiated to *Rakta* (~blood), *Tvacha* (~skin), *Mamsadhatu* (~muscle), and *Lasika* (~tissue fluid). [7]

Indulging in etiological factors leads to vitiation of *Vata*, *kapha*, and *Rakta*. Vitiated *Vata* and *Kapha* producing symptoms like itching, bumps on skin while vitiated *Raktadhatu* was responsible for producing symptoms like reddish-blackish discolouration of bumps over legs and thighs, burning sensation over lesions. The condition was diagnosed as *Charma Kushtha* under heading of *Kushtha* based on clear clinical presentation. *Charma kushtha* is one such disease explained under heading of *Kshudrakushtha* (~disease of skin). The classical symptoms of *Charma Kushtha* described in *Ayurveda* resembles Lichen planus. In this paper a patient diagnosed with Lichen Planus (LP) was managed successfully by *Ayurvedic* treatment on lines of *Kushthachikitsa* (~treatment of skin disease) was discussed.

Materials and Methods

Place of study

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Case Report

A 38-year-male patient on date of 20/11/2024 came to Ayurveda hospital with complaints of patient firstly developing a burning sensation on buccal mucosa and dorsum of tongue during chewing food. The complaint got aggravated by eating spicy food. Afterward he developed pain from chewing. Due to above complaints, he had consulted an allopathic dentist. Though allopathic treatment was continued, he got symptomatic relief only when medicine was continued. Afterward he reported discomfort and burning sensation in buccal mucosa and dorsum of tongue on consumption of spicy food and drinks, so he came with these complaints for betterment.

He was not having any kind of addiction and no family histories found to be significant. White radiating striae were present on left and right buccal mucosa. The striae were non scrapable and did not disappear on stretching. Mild to moderate plaque accumulation and extrinsic stains were present on dorsum of tongue. There were no signs of ulceration. Diagnostic Focus and Assessment. The diagnosis was done on basis of symptoms, general oral examination and histopathological biopsy report.

General oral Examination

Inspection

- White Radiating Striae On Bilateral Buccal Mucosa And Ventral Surface Of Tongue.
- Mild To Moderate Plaque Accumulation And Extrinsic Stains Were Present On Dorsum Of The Tongue

Palpation

- Bilateral Buccal Mucosa And Ventral Surface Of Tongue Striae Were Non Scrapable And Did Not Disappear On Stretching.
- No Bleeding Tendency.

Past History: No Significant history of past illness contributing to the current condition of patient

Family History: No past Family History

Personal History:

Age/sex - 38 yrs/M
Dietary habits - Veg/non veg

Bladder - Regular

Height - 165 cm

Bowel - Regular

Weight - 58kg

BMI - 24.6 Kg/m²

Habitat - Urban

Prakriti - Kapha-Pitta

Sleep - Sound sleep

Occupation - Labour

Agni - Vishamagni

Growth and Development - proper as per age

Koshtha - Madhyam

Addiction - No Addiction

Bala - Madhyam

Satmya - Sarva Rasa Satmya

Ashtavidha Pariksha

Nadi - 74/min,

Mala - Normal

Mutra - Normal

Shabda - Clear

Sparsha - Normal

Jivha - Whitish coated

Drika - Normal

Akriti - Krusha

Nidana

- Consuming salty, spicy, cold and hot food items at the same time.

- Consumption of *Virudh Aahar*, *Virya Virudha*, *Asatmya* food items like fish with milk, sour fruits with milk, etc.

- Improper routine and behaviour

- Bad deeds which cause emotional stress factors like repentance / fear / anxiety

- *Kapha-Vaatadosha Prakopa Nidana* - causes for vitiation of all the *Kapha* and *Vata Dosha*

Purvaroop

- Absence of sweating
- Loss of tactile sensation

Samprapti

Due to causative factors, vitiated *Doshas* (mainly *Kapha* & *Vata*) vitiate *Rasa Dhatu*, *Rakta Dhatu*, *Mansa Dhatu* and reach skin. It settles on skin & develops into thick & hard skin rashes. Due to vitiation of *Rakta Dhatu*, burning sensation over lesions was seen (*Rakta-Pitta Ashrayashrayi Bhava*).

Samprapti Ghataka[5]

Dosha - *Vata-Vyana Vayu*, *Pitta-Bhrajaka Pitta*

Dushya - *Rasa, Rakta, Mamsa, Lasika*

Ama - *Jatharagni Janya Ama*

Agni - *Jatharagni Janya*

Srothodushti Prakara - *Sanga*

Srothas - *Rasavaha, Raktavaha, Mansa Vaha,*

Roga Marga - *Bahya*

Udbhava Sthana - *Amashaya*

Vyaktasthana - *Twacha*

Roga Swabhava - *Chirakari*

Samprapti[6]

Nidana Sevana like spicy foods, cold air exposure, and stress, forms *Jataragni* and *Rasadhatwagni* *Janya Ama*, vitiating *Tridosha*, *Twak*, *Rakta*, *Mamsa*, *Lasika*, and *Sthanasamshraya* in *Twacha*, leading to *Charma Kushta*.

Lakshana

Hasticharma - thick skin like that of elephant

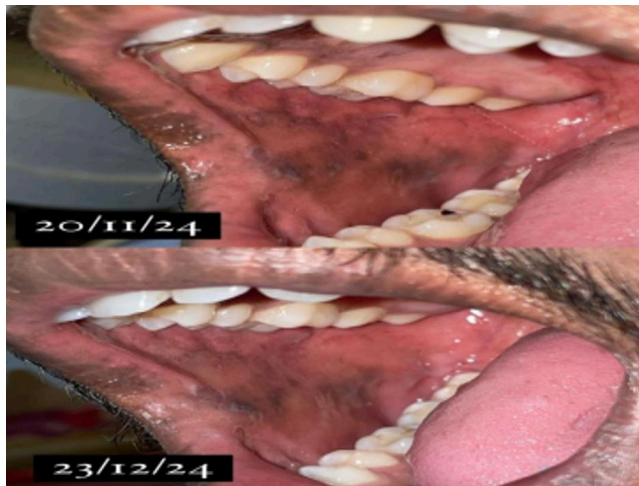
Kharasparsam - Hard/rough to touch

Prognosis

Krichasadhya

Histopathological biopsy report - Hyperplastic squamous epithelium with mild to moderate chronic nonspecific inflamm. in scanty submucosal tissue.

Diagnosis - Oral lichen planus



Treatment Plan

Since the patient was told by the dermatologist about the prognosis of his condition and also became aware of the disadvantages of corticosteroids from some other sources, he had chosen Ayurvedic intervention for his condition. As there was no established *Ayurvedic* treatment available particularly for lichen planus, he was also explained about the uncertainty of the treatment.

(A) Internal Medication: *Ayurvedic* drugs prescribed to the lichen planus case

SN	Drugs	Doses	Anupana	Kala
1.	Tab. Avipattikar Vati	2 HS	Lukewarm water	After Food
2.	Tab. Chandrakala Ras	1BD	lukewarm water	After Food
3	Tab. Chandanadi Vati	2 BD	Lukewarm water	After Food
4	Gairik with Ghrita	As per need	Local application	2 times
5	Manschapachak Churna [Nimba, Patol, Triphala, Mrudvika, Musta, Vatsak Churna	5mg BD	Normal water Before food	

(B) Dietary modification - normal balanced diet, devoid of- seafood, pickles, prawns, curd, eggs

Pathya: Laja, Jowar roti, Bitter gourd, resins, Dadim, Shali, Mung Daal, ridge gourd.

Apathya: Ati-Amla, Ati-Lavana, Dadhi, fermented food, milkshakes, bakery products.

Behaviour:

- Avoid sedentary lifestyle. Be active.
- Better to avoid exposure to excessive sunlight wind rain or dust.
- Maintain a regular food and sleep schedule.

- Avoid forcing or holding of natural urges like urine, faeces, vomiting, hiccups etc.
- Avoid Stress and emotional imbalance as much as possible.

Measures and Follow-Up:

By just following the proper ayurvedic management with proper dietary and social lifestyle for 2 months he got almost complete relief. The severity of patches and their number decreased on each visit. The patient followed the above intervention for a total Duration of 2 months. The patient didn't leave the treatment in this 2-month duration and followed all the advice given to him. He was relieved from the symptoms in just 2 months from which he was suffering for the last 2 years only by ayurvedic medication.

Discussion

In Ayurveda, many formulations are given in *Kushta Roga Chikitsa*. We gave some medicines to patient according to their disease and availability.

1] Avipattikar Vati - The ingredient which contributes major quantity in *Avipattikara Churna* is *Khanda Sharkara* (50%) which has *Madhura Rasa* which leads to *Vata Dosha Shaman*. It has *Snigdha Guna*, *Sheeta Virya*, and *Madhura Vipaka*, simultaneously which helps to take care of *Vidagdha Pittajanya Daha* i.e., *Hrutkantadaha*, *Tiktaamlo-dgara*, *Hrillasa*, *Praseka*, and *Chhardi* as it is described in *Bhavaprakasha* as "*Vantiharamparam*". [23]

Khandasharkara properties compensate the *Laghu*, *Ruksha*, *Ushna*, and *Teekshna Guna* of other drugs mainly *Lavanga*, which contributes about 8.3% of the formulation. Second major quantity is contributed by *Trivrit (Nishotha)*. It has mainly *Katu Rasa*, *Laghu*, *Ruksha*, *Tikshna Guna*, *Ushna Virya* and *Katu Vipaka*. It has *Rechana* and *Shothahara* property leading to excess *Pitta Virechana (Sukhavirechaka* - mild laxative) thus helpful in elimination of *Dushta Doshas* and *Mala*. *Lavanga* being the third high quantity ingredient has *Katu*, *Tikta Rasa*, *Laghu*, *Tikshna Guna*, *Sheeta Virya* and *Katu Vipaka*. It has *Deepana*, *Ama Pachana*, *Vata Anulomana*, *Shula Prashamana* activity which helps to tackle *Agnimandya Janya Vikara* and associated *Shula*. Rest 11 ingredients are in minimal quantity i.e., 1/11th part of *Lavanga*.

All these possess *Katu, Tikta, Madhura Rasa, Laghu, Ruksha, Teekshna, Snigdha Guna, Ushna Virya, Katu* and *Madhura Vipaka* having *Deepana, Pachana, Vatanulomana* activity ideal in all *Agnimandya Janya* and *Amaja Vikaras*. *Deepana, Pachana Karma* of all the drugs maintains *Agni* and prevents *Ama* formation. *Lavanga* by its *Katu, Tikta Rasa, Tikshna Guna, Katu Vipaka* helps in *Vatanaulomana* and *Shula Prashamana*. *Khanda Sharkara* being maximum in quantity (66 part) helps in *Daha* and *Vanti Shamana*.

2] Tab. Chandrakala Ras is indicated in *Kustha, Medo-Dosha* (obesity), *Yakritvikara* (liver disorders), and *Jirna Jwara* (chronic fever).[7] It enhances digestive health. It aids in reducing bloating, indigestion, and other gastrointestinal issues. It reduces the *Ushna, Tikshna Guna* of *Pitta Dosha* leading to *Niraam Pitta Shaman*. The herbal components work together to promote a healthy digestive system. *Chandrakala Ras* can improve skin health by addressing various skin conditions. It helps in reducing acne, eczema, and other skin irritation. *Chandrakala Ras* is made from a blend of powerful herbs. Some of the main herbs include *Amalaki* (Indian Gooseberry), *Haritaki* (Chebulic Myrobalan), and *Guduchi* (*tinospora cordifolia*). These herbs are known for their healing properties and play a crucial role in the effectiveness of *Chandrakala Ras*.

3] Chandanadi Vati[8] is a classical Ayurveda formulation that has been considered prime Ayurveda formulation amongst many others due to its enormous therapeutic benefits. The formulation mainly offers anti-allergic, antibacterial, anti-inflammatory, analgesic and blood purifying properties, it acts as *Pitta Shamaka, Daha Prashamana*. Ascorbic acid and tannins like emblicanin A and B in *Chandanadi Vati* support the repair of cells damaged by inflammation or other pathologies.

- *Chandanadi Vati* has anti-inflammatory activity in skin by regulating Cortisol levels in Keratinocytes.
- Sandal wood oil suppresses the expression of the pro-inflammatory cytokine, IL-1b, in keratinocytes and reduced irritant dermatitis
- *Chandanadi Vati* Pitta hara action acts as a coolant and is beneficial in excessive heat exhaustion and its complications.

- *Tribulus* in *Chandanadi Vati* diuretic action enhances urine output, corrects, Dysuria and reduces burning sensation.
- *Karpoora* in *Chandanadi Vati* acts on the skin and helps reduce the burning sensation and redness by stimulating the cold receptors.
- Alpha-santalol, an inhibitor of tyrosinase, a key enzyme in the biosynthetic pathway for the skin pigment melanin, may potentially act as an inhibitor of abnormal pigmentation
- α and β santalol compounds in *Chandanadi Vati* exhibit antibacterial activity against gram-negative bacteria that may relieve Urinary tract infections.
- *Charaka* mentioned *Khadira* as best drug for *Kushta* (Skin disorders) and also for *Prameha* (Urinary disorders)
- Catechins in *Acacia catechu* has Anti Inflammatory, anti-Microbial activity helpful in management of inflammatory Skin disorders, Ulcers, Boils.
- *Amla, Kushta, Daru Haridra* exhibit Hypoglycaemic action useful in management of Type 2 diabetes

4] Local Application of Gairik along with Ghrita

Possible mode of action of Gairik along with Ghrita Lepa[9-11]

Gairik having *Sheeta Virya, Madhur Rasa, Snigdha*, acts as *Raktashodhak, Vishghna* properties. *Ghrita* acts as *Daha Shamak, Pitta Prashaman*. Absorption of drugs through the body surface deserves special care for its optimum delivery. As the fire gets extinguished immediately with the action of water; in similar manner, *Lepa* pacifies the provoked local *Doshas* by *Pralhadana, Shodhana, Sopha Harana*. In case of lichen planus over skin surface, *Lepas* should be applied against the hair follicular direction, this facilitates the quicker absorption of the drugs through *Romakupa* (Hair roots), *Swedavahini* (sweat glands) and *Siramukha* (blood capillaries). In the chapter *Dhamani Vyakaranasadhyaya* Sushruta explains *Dhamanis* which are *Urdhwagata, Adhogata* and *Tiryakgata*. Here he explains four *Tiryakganisiras*. Out of these four, each divide gradually hundred and thousand times and thus become innumerable; by these the body is covered like network, bound,

Their openings are attached to hair follicles which replenish *Rasa* inside and outside. The *Veerya* of *Abhyanga*, *Snana* and *Lepa Dravyas* enter the body through them. The function of *Bhrajaka Pitta* is said to metabolize the substance of drugs applied to the skin whereas one of its main functions is to manifest the colour and complexion of the *Twak* (skin).

In the function of metabolism, the activities of *Samanvayu* supported by *Vyana Vayu* is of great importance. *Ayurveda* also propagates the theory of '*Strotomaya Purush*' indicating that the whole human body is porous. When the medication is applied in the form of *Lepa* or *Pradeha*, the minute particles of the substance penetrate the mucosa owing to the gravitational pull and the weight of the drug.

The *Upashoshana* property of *Vayu* (*Vyana* and *Samana* especially) would play a major role in the penetration, and absorption of the medicaments applied over the mucosa. After being absorbed, the drugs would act upon the body, pertaining to its *Virya* (active principle) and in some cases according to its *Prabhava*.

Ii) *Mansapachak Churna* contains ingredients that are *Nimba*, *Patol*, *Triphala*, *Mrudvika*, *Musta*, *Vastak Churna* having *Deepana* and *Rakt Prasadana*

Conclusion

As we all know skin is the sensitive part of our body and the patient wants permanent results. Due to taking modern medicine chances of remission of disease are more. So, there are more burdens on us for the treatment for the better standard of living of the patient. In this case, *Vata Pitta Shamaka* and *Raktaprasadankar Dravya's usage* has assisted in the positive outcome. Along with the application of treatment modality, certain lifestyle changes have to be stressed. *Ayurvedic* treatment can cure Autoimmune skin disease like Lichen Planus which we can relate to *Charma Kushta*.

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