

Case Study

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AYURVEDIC APPROACH ON LICHEN PLANUS WITH SPECIAL REFERENCE TO KITIBHA KUSHTHA: A CASE STUDY

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ABSTRACT

Skin disease makes as a great impact as other serious medical conditions when assessed by effects on health-related quality of life. There has been widespread acknowledgment that skin diseases can affect physical, social, and psychological aspects of patient's everyday lives, as well as their partners, family, and friends, one such disease is Lichen planus. Lichen planus is a pruritic, benign, papulo-squamous, inflammatory dermatosis of unknown aetiology that affects either or all the skin, mucous membrane, hair, and nails. In its classical form, it presents with violaceous, scaly, flat topped, polygonal and papules. In classical texts of Ayurveda, the diagnosis is considered as Kitibha Kushtha. Kitibha Kushtha is vata and kapha dosha dominant condition in class of Kshudra Kushtha which has lakshanas like Shyava, Kina-khara sparsha, Parusha. Here, an effort was made to treat a thirty-eight-years old female diagnosed with Kitibha Kushtha vis-a-vis Lichen planus by classical Ayurveda regimens. She was administered with Shodhana therapies (bio-cleansing procedures) and then followed by intake of Thuvaraka rasayana and Shamana Aushadhis. The total duration of the treatment was 44 days, and the Study subject assessed before treatment and after treatment for improvement using Lichen planus Severity Index. All the symptoms observed in the beginning were found considerably reduced, and the severity also found mild.

Keywords: Lichen planus, Kitibha Kushtha, Shodhana, Shamana Aushadhis, Tuvaraka rasayana.

INTRODUCTION

Lichen planus (LP) is a chronic mucocutaneous disorder of the stratified squamous epithelium that affects Skin, scalp, oral and genital mucous membranes. It is derived from the Greek word "Leicheno" means the tree moss and Latin word Planus means Flat. The designation and description of the pathology were first presented by the English physician Erasmus Wilson in 1866. He considered this to be the same as "Lichen ruber", previously described as Hebra and characterised the disease as an eruption of pimples remarkable for their colour, their figure, their structure, their habits of isolated and aggregated development. Lichen planus is estimated to affect 0.5% to 20% of the general population. The prevalence rate in India is 2.6%.

In Ayurveda skin diseases are collectively described as Kushtha rogas, kushnati vapu iti kushtam, in Shabda Kalpa Druma the word Kushtha carries the meaning as the one, which makes the body unpleasant look. The Kushtha rogas explained in Ayurveda texts narrates almost all skin ailments including Kitibha Kushtha. The term "Kitibha" has been explained in Monnier William's Sanskrit-English dictionary, it is constituted by the combination of two words i.e., 'Kiti' and 'Bha' where Kiti refers to a variety of insect, which is black in colour and found in kasha Pradesha and the term 'Bha' refers to similarity or resemblance. Hence the term 'Kitibha', suggests something that resembles the colour of Lice or a Bug and very ugly to look as like it is Varaha or pig. The inner meaning of Kiti also refers to having many skin lesions. Considering the severe itch like that of lice or bug bite and the

colour resembling to them, the name Kitibha might have been given by our Acharya. Due to its resemblance in signs and symptoms, Lichen planus seems like Kitibha Kushtha. Kitibha Kushtha is vata and kapha dosha dominant condition in class of Kshudra Kushtha which has lakshanas like Shyava, Kina khara sparsha, Parusha. The vitiated dosha affects the skin and its blood circulation affecting the moisture of the tissue. Affected skin therefore becomes discoloured and thick. We herein report a case of symmetrically distributed Lichen planus which was effectively managed by Ayurveda treatment modalities.

Case report

Presenting concern

A 38-year-old female patient reported to the Outpatient Department of Kayachikitsa at SKAMCH & RC, Bangalore with the complaint of recurrent episodes of cracks on bilateral soles for 14 years. Itching was severe, the serous was oozing out of areas. The wound was found infected due to sever itching (Figure 1). She also complaints of bilateral lower limb swelling, it was confined to the foot at the area of wound. It was pitting in nature. It used to get reduce once the legs are elevated. Patient also complains of pain at the area of cracks, it was throbbing in nature.

Patient complaint of severe itching and burning sensation all over the body for 1 month, it was insidious in nature. Patient found skin lesions which was purplish black, well defined, non-elevated in the bilateral lower limbs. By the end of the month the same skin lesions were spread to both the upper limbs, lower limbs, upper back, trunk, abdomen, such occurrence of lesions are found to be 10 to 12 lesions per day. (Figure 2 and 3) These lesions aggravate on having curd, fish, spicy food substances and no relieving factor.

Her medical history revealed that of having antidepressant and anti-anxiety tablets for 18 years and presently on the Sertraline 50

mg and Clonazepam 2 mg. No significant family history. Patient's married life is 20 years blessed with 1 child (Male) and stays in a joint family, often her life was associated with stress and tension as reported by patient. By diet she was non-vegetarian, but she has stopped taking non-vegetarian diet once she got lesions. Now she is vegetarian by diet.







Figure 3

Figure 1 Figure 2

Clinical findings

General Physical and Systemic examination revealed that she's moderately built and nourished, appeared depressed and sad and without alterations in vital signs. She had a normal appetite, bowel and bladder habit and regular sleep pattern. Her prakriti was Pitta-Kapha predominant and she was assessed with Depression Anxiety and Stress score (DASS) indicated moderate depression, mild anxiety, and moderate stress.

Local examination

Local examination of foot revealed that there was mild diffuse swelling on both lower limbs. Lichenification is seen. By palpating the lesion are mildly tender and non-indurated.

Wound examination

Site of the wound is bilateral soles, Wound measuring about 3 X 1.5 X 0.5 cm in dimension, Margin of wound is irregular, Edge of the wound is slope, in floor- wound bed healthy granulations tissues are seen, Necrotic tissue and slough are absent, the wound exudates are serous, quantity of exudates is minimum (+), Bleeding absent, Base of the wound is seen in Calcaneum.

Cutaneous examination revealed presence of multiple purple, polygonal, pruritic, flat topped, violaceous papules measuring 1 mm to 2 mm, present over legs, forearms, upper back, trunk, abdomen with a well-defined border. Lesions are surrounded by erythema that has a blood tinged that might be due to rubbing on lesions by fingernails to relieve itching. Both the Bulla spread sign and Nikolsky sign were negative. The diagnosis of Lichen planus was made on history, clinical examination and on severity index of lichen planus.

Oral cavity was normal with a poor oral hygiene. Close differential diagnosis could be psoriasis vulgaris, guttate psoriasis, Lichen nitidus, Lichen simplex chronicus. In Ayurveda we can differentiate with Eka Kushtha, Vicharchika, Vaipadika. But morphology of lesions with sites of predilection favours more toward lichen planus and Kitibha Kushtha. Patient was explained about the diagnosis along with treatment approach and informed consent was taken for further investigation and treatment protocol.

Investigation

Patient was subjected to investigations like CBC, RFT where her lymphocytes was -15.2, RBC count 5.54, PCV 56.8, MCV 102.7, MCHC 28.6

Calculating the Lichen Planus Severity Index

Before treatment

Step 1

Assigning the body surface area factor

Total involved body surface area is calculated using the Wallace rule of nine

As 65% of body surface area is involved, BSA factor is 3

Step 2

Lichen planus lesion count and percentage.

Total number of -

Erythematous papules - 22

Violaceous papules - 6

Violaceous plaques - 2

Hyper pigmented hypertrophic papules & plaques -189

Post inflammatory hyper pigmentation – 0

Total no. of lesions – 219

Individual percentage of each of the above lesions –

Erythematous papules – 10.04

Violaceous papules – 2.73

Violaceous plaques – 0.913

Hyper pigmented hypertrophic papules and plaques- 86.30 Post inflammatory hyper pigmentation- 0

Step 3

Determine area involvement factor for each lesion based on the above percentages on a scale of 0 to 4

Area involvement factor for each lesion

- 1) AIF Ep: 1
- 2) AIF Vp: 1
- 3) AIF Vpl: 1
- 4) AIF Hp: 4
- 5) AIF PIH: 0

Step 4

Multiplication Factor

Severity of the disease is assessed by natural history and morphology of lesions. Hypertrophic lesions are regarded as the most severe and are assigned the maximum value. Multiplication factor used for each morphological type of lesions is as follow.

Hyperpigmented hypertrophic papules and plaques (Hp) -4 Violaceous flat plaques (Vpl) -3 Violaceus flat papules (Vp) -2 Erythematous papules (Ep) -1 Post inflammatory hyperpigmentation (PIH) -0

Step 5

Multiply multiplication factor with the area severity factor for each of these lesions and then total





Figure 5

(AIF Ep x MF Ep) + (AIF Vp x MF Vp) + (AIF Vpl x MF Vpl) + (AIF Hp x MF Hp) + (AIF PIH x MF PIH) = (1x1) + (1x2) + (1x3) + (4x4) + (0x0) = 22

Step 6

Multiply the final value with the BSA factor to obtain Lichen planus Severity Index $22 \times 3 = 66$

After treatment

Physician Global Assessment is taken for assessing where the score was 2 out of 6. The physician Global Assessment is a general objective scoring system that describes disease activity and is scored from 0 to 6. Scores are: 0 implies clear, 1 almost clear, 2 mild, 3 mild to moderate, 4 moderate, 5 moderates to severe and 6 severe disease activity. (Figure 4-6)⁹



Figure 6

Therapeutic intervention

Patient was diagnosed with Kitibha Kushtha, pathological staging was Kapha Vata dosha abnormality along with Pitta. Management was with Deepana and Pachana to achieve Nirama Avastha before going to classical Snehapana, Virechana, Rasayana. Patient was administered 25 ml of Snehapana and observed for sneha-jeerna lakshana. The snehana given to the patient was digested for 3 hours, so this has been calculated for 24 hours, so decided a dose of 175 ml for rest 6 days. Patient soles wound were cleaned with the Triphala Kwatha and Jatyadi taila is applied and wound dressing is done twice in a day. Details of the treatment like chronological interventions, duration of treatment, medicine used, dosage etc. have been enlisted in Table 2. Panchakarma procedures were done as per the principles and practises of Ayurveda classics.

Follow up and outcomes

Patient was treated from February 15th, 2021, to till date, Active intervention for Lichen planus was till 26th April 2021 and patient follow up observation was continued till the date. Outcome on Integumentary System like Itching, burning sensation, fluid filled lesions and other symptoms of Lichen planus showed a reduction score by calculating in the Lichen planus Severity Index.

Picture of the affected skin was taken at the time of initiation of the treatment and subsequent observations were also noted. The patient was assessed clinically on every fortnight visit. The photographs were taken consecutively after each follow-up when compared with before treatment status to exhibit changes in the skin lesions. This is showing the considerable improvement in the skin lesions following the treatment to the before treatment status. No adverse effect pertaining to the prescribed drug reported. On follow up we noticed there was no reoccurrence and any new lesions.

DISCUSSION

Lichen planus management depends upon the age of the patient, site affected and type of Lichen planus. Ayurveda treatment showed to be effective in management of Lichen planus. Extended follow up observations showed that improvements were well sustained. Since the patient was explained about the prognosis of her condition and, she was aware of the disadvantages of systemic corticosteroid from some other sources, she was in search of alternative system of medicine, so she consulted Outpatient Department of Kayachikitsa at SKAMCH & RC, Bangalore where she was diagnosed as Kitibha Kushtha vis-à-vis Lichen planus and planned the line of treatment as Kushtha rogas. Patient treatment was planned as Virechana (Purgation therapy / Gut cleansing), Sarvanga abhyanga in the Vishrama Kala (massage of whole body with medicated oil), Baspa Sweda (Sudation), Rasayana and oral medications.

Table 1: Comparison of Lichen Planus, Kitibha Kushtha and manifestation in patient

Textual information of KitibhaKushta ^{8,10,11}	Textual information of Lichen Planus	Manifestation in Patient
It is seen in the Vyakta avastha i.e., fifth stage in kriya kala, in this stage we can assess the predominant of dosha.	A sub-acute or chronic dermatosis characterised by Small, flat topped, Shiny, polygonal, violaceous papules that may coalesce into plaques.	Severe itching and Burning sensation
In Kitibha Kushtha – Predominance of Vata and Kapha are seen alone with the involvement of pitta.	A non-inheritable reaction pattern precipitated by variety of unrelated, mostly unknown, factors.	Preceded by eruption of fluid filled vesicle on bilateral lower limbs and upper limbs, this fluid filled vesicles used to burst within few seconds, continuous, severe intensity,
Shyava (Bluish black dis colouration of the skin)	The cutaneous lesions of LP are characterised by 5 P's: Purple, polygonal, pruritic, Papules and plaques	By the end of the month the lesions were spread to both the upper limbs, lower limbs upper back, trunk, abdomen.
Kina sparsha- 'Rooda vrana sthana sadrusha' (The surface of the lesion resembles like healed wound on touch)	Initially, Lichen Planus is evident as a cutaneous and mucosal eruptions, though rarely it can manifest with only oral or nail findings.	Associated with bilateral sole cracks, bilateral lower limb swelling and pain.
Khara sparsha (Lesions are rough or course to touch)	Lichen Planus usually begins as discrete, flat-topped papules that are 3 to 15 mm in diameter which may coalesce into larger plaques.	Associated with bilateral sole cracks, bilateral lower limb swelling and pain.
Parusha (Dry lesion)	Early in course of disease they appear red, but soon they take on reddish purple or violaceous hue.	Recurrent episodes of serous was oozing out of areas looks like presently cracks were infected and lead to secondary infection
Kandu (Itch)	The lesions can occur anywhere on skin surface but often are located on the flexor surfaces of limbs, inner aspects of knees, thighs, and trunks. The face frequently remains uninvolved.	Cutaneous examination revealed presence of multiple purple, polygonal, pruritic, flat topped, violaceous papules measuring 2cm by 1 cm present over anterior aspects of legs, forearms, upper back, trunk, abdomen with a diffused border.
Prashantanani cha punar utpatyate (Subsides and		
relapse)		
Vrudhimanthi (Spreading or overlapping in nature)		
Vritta (round) Ghana (well defined border with more thickness)		
Snigdha (Sticky or unctuous)		
Krishna (Blackish in colour)		
Aruna (Light reddish colour)		

Table 2: Possible Samprapti Vighatana analysis

Duration of Intervention	Intervention Given	Lakshmana /Manifestation	Sampath (Pathology)	Doshavruddhi/ Kshaya
3 days	Deepana and pachana with Agnitundi vati and Chitrakadi vati	Severe itching and Burning sensation, eruption of fluid filled vesicle, Lesions were multiple purple, polygonal, pruritic, flat topped, violaceous papules bilateral sole cracks, bilateral lower limb swelling, pain and serous was oozing out of that area.	Kapha Pitta	Pitta Samsruta, Kapha-Vata Vriddhi
7 days	Panchatikta guggulu Ghrita (25 ml, 50 ml, 75 ml, 100 ml, 125 ml, 150 ml, 175 ml resp.)	Severe itching and Burning sensation, eruption of fluid filled vesicle, Lesions were multiple purple, polygonal, pruritic, flat topped, violaceous papules bilateral sole cracks, bilateral lower limb swelling, pain and serous was oozing out of that area.	Kapha Pitta	Pitta Samsruta, Kapha-Vata Vriddhi
3 days	Vishrama kala -Abhyanga was done with Maha Marichyadi Taila -Baspa Sweda	Severity of Itching, burning sensation reduced to 20%	Kapha Pitta	Pitta Samsruta, Kapha-Vata Vriddhi
Day 14 th	Virechana with Icchabhedi rasa 3 tablets and Triphala Kashaya 150 ml	Total Vegas of 18, Bilateral lower limb swelling, pain and serous was oozing out was reduced to 30%	Kapha Vata	Kapha Vata Vridhi, Pitta Kshaya
5 days	Samsarjana krama after Virechana	50% reduction in burning sensation, episodes of occurrence of new lesions was reduced from 10 to 12 times/ day to 6 to 7 times/ day.	Vata Kapha	Vata vriddhi
5 days	Rasayana- Tuvaraka taila of 15 ml with Shunthi churna. Advised- Sheeta jala	Itching and burning sensation reduced to 70%, also noticed patient had vomiting and loose stools in due course while consuming the rasayana. There was no Bilateral lower limb swelling, pain and serous oozing from the bilateral soles	Vata	Vata vriddhi
5 days	Samsarjana krama after Rasayana	No new lesions. Bilateral soles were healed, there was no Itching and burning sensation on lesions.	Vata	Vata vriddhi
15 days	Kaishora Guggulu 1 TID, Sarivadyasava 50 ml TID,	Itching and burning reduced to 100%, soles wound is completely healed, there is no occurrence of new		Vata vriddhi

	Guggulu tikta ghrita 25 ml once a day, Marichyadi Taila E/A	lesions. The lesions are almost clear and Global assessment score showed 2.		
Day 1 to 44	Triphala Kwatha for washing B/L soles, application of Jatyadi taila	Pain, swelling in b/l lower limbs, serous oozing from the b/l soles.	Vata, kapha	Kapha Pradhana vata
	and wound dressing is done	the 6/1 soles.		vata

Virechana is specially indicated in the Pittaja and Rakta Prodoshaja vikara, as Kitibha Kushtha is also rakta Prodoshaja Vikara along with association of pitta mentioned by Sushruta, so virechana can relive the disease by expelling the doshas out from the body. As Kitibha Kushtha is vata-kapha Pradhana Pitta Samsargaja tridoshaja vikara, virechana may help in this condition by eliminating the morbid Tridoshas. Virechana brings Varna Prasadana by which the Vaivarnyata present in Kitibha Kushtha may normalize the discoloration. Virechana brings buddhi, Indriya, Mana Shuddhi; this does the normalcy of psychological causes involved in the Samprapti of Kitibha Kushtha. Kandu is said to be kapha and ambu dushti lakshana, these vitiated factors can be eliminated from body there by relives the Kandu. Virechana does dhatu Shuddhi, which in turn, may balance the altered immune system that was the basic defect present in Lichen planus.

Acharyas has told that Rasayana should be carried out after Shodhana 12. It is understanding that after Shodhana only, superior Rasayana effect will be achieved. Tuvaraka [Hydnocarpus laurifolia (Dennst) Sleumer of family Flacourtiaceae and English name Marothi tree] is one among the most trusted drugs from the treasure of Ayurveda. The oil extracted from the seeds of 'Pakwa Tuvaraka Phala', commonly known as 'chaulmoogra oil' is mentioned as a potential healer for all types of Kushtha rogas - a group of skin diseases¹³. After treatment the assessment was done using the Physician Global Assessment where the score was 2 out of 6. So, it proves that Shodhana gives better relief, but Rasayana followed by Shodhana gives pre-eminent results the reason may be as below. Rejuvenator therapy is unsuitable to him who has not undergone purificatory therapies earlier just as dying a dirty cloth does not make the colour shine bright¹⁴. Tuvaraka removed the Shesha doshas and Shakta doshas from both the orifices, this has become more evident, and patient got much more relief after this.

Other oral medication as Kaishora guggulu specially indicated in Vata rakta, Vrana and Kushtha and act as anti-allergic, anti-bacterial and blood purifier. It acts as health promoter for aging skin, acts as natural blood cleanser. The Kaishora guggulu balances pitta and kapha, its main ingredients are Guduchi, Triphala and Trikatu when combined with guggulu, create detoxifying and rejuvenating combination aimed primarily at removing deep seated pitta. Kushtha is rakta Prodoshaja vikara, where pitta and rakta are ashraya ashrayi bhavas so this drug was selected. Sarivadya asava is described as Rakta Prasadaka. It acts as blood purifier and commonly used in various skin disorders. It also cures the diseases caused by vitiated rakta dhatu Guggulu Tiktaka Ghritam is given for vata kapha shamana, and external application of Marichyadi taila is given for kapha hara purpose.

CONCLUSION

The Kitibha Kushtha vis-à-vis Lichen planus, which is vata kapha predominant, by the prolong use of anti-depressant drugs and by negligence the disease may spread to whole body surface. The early diagnosis and effective treatment in the initial stage will yield a good result.

The administration of corticosteroids as per contemporary science to cure Lichen planus will be leading to manifest many side effects. The treatment like Classical Shodhana along with administration of Tuvaraka rasayana and Shamana Aushadhi which are time tested and traditionally practised treatment in Ayurveda are proved to be not only best in curing the Lichen planus but also prevents the reoccurrence. Allergic dermatitis which was found in b/l soles are cleaned with Triphala Kashaya and wound dressing was done by using Jatyadi taila. This classical Shodhana, Tuvaraka Rasayana and Shamana Aushadhis not only showed the local effect but also showed the effect in whole body surface area.

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