

WORLD JOURNAL OF PHARMACEUTICAL RESEARCH

SJIF Impact Factor 8.453

Volume 13, Issue 13, 1462-1472.

Review Article

ISSN 2277-7105

CRITICAL REVIEW OF KITIBHA KUSTHA WITH SPECIAL REFERENCE TO LICHEN PLANUS

Anu Mariam Varghese*

Physician at Vaidyaratnam Ayurveda Foundation Hospital, Thrissur, Kerala, India.

Article Received on 17 May 2024,

Revised on 07 June 2024, Accepted on 27 June 2024

DOI: 10.20959/wjpr202413-33102



*Corresponding Author Dr. Anu Mariam Varghese Physician at Vaidyaratnam Ayurveda Foundation Hospital, Thrissur, Kerala, India.

ABSTRACT

Lichen planus is an autoimmune chronic inflammatory papulosquamous disease of unknown origin that affects the skin, mucous membranes, nails and hair. Papulosquamous disorders manifest as papules surmounted by scales. Skin lesions in lichen planus clinically present as flat-topped, purple papules with pruritus. Skin diseases represent a significant burden in now days, affecting millions of people every year. In Ayurveda there are different types of skin diseases which are mentioned under kushta prakarana. Kitibha kushta is one among them which is mentioned in our classical textbooks. It is characterized with symptoms like, Ruksha (dry and rough), Kinakarasparsa (Thickened rough or dry skin on touch), Parusha (Lichienified Kandu (Itching), lesions), Asitham (Hyperpigmentation), etc. Morphologically the lesions of lichen planus

and kitibha have a close resemblance. Modern management incudes corticosteroids, immunosuppresents, PUVA therapy, etc. Ayurveda treatments incudes sodhana (Purifactory), samana (Pacifying) and rasayana (Rejuvenative and palliative) therapies to mitigate the disease from its root cause.

KEYWORDS: *Kitibha kushta*, Lichen planus, Papulosquamous.

INTRODUCTION

Ayurveda is a traditional system of medicine which has a holistic perspective in diagnostic as well as therapeutic means since many centuries. In the current scenario the rich collection of knowledge endowed with the core principles of this unique science holds a special place in all branches of medicine especially in dermatological cases. In Ayurveda a patient is examined by darasana (Inspection), sparsana (Palpation and percussion) and prasna

(Interrogation) which is called *tripareeksha* (Three modes of examination). Through these modes of examination and the detailed description of etiopathogenesis, symptomatology, treatment protocol etc. in the classics, a physician will be well versed in the diagnosis as well as treatment. In Ayurveda we can see the references of autoimmune, chronic and even dreadful skin diseases which have contemporary significance. Lichen planus is such an autoimmune disease that causes a series of pathological changes in the body with an idiopathic cause. It can be merely correlated with many skin diseases in Ayurveda. But morphologically and symptomatically it is closely resembled with *Kitibha kushta* mentioned in Ayurvedic classics. The incidence of lichen planus has increased now especially after covid-19 pandemic. Lichen planus is a rare complication following Covid-19 infection and vaccination, and patients with immunocomprimising comorbidities may be particularly vulnerable.^[1]

Disease review- Kitibha kushta

Kushta is considered as one of *Astamahagadam* in Ayurveda i.e. one of the diseases which is difficult to cure. *Kushta* is a term which is widely used as a collective term for all skin diseases in Ayurveda. The word *kushta* is derived from the root word "*kush*" meaning "that comes out from inner art to the outer part".

Dhatu ulpathi – "kush nishkarshe" meaning which destructs the dhatus those one by day. [2]

"kushati anam va purve iti kushtam" meaning, when disease not treated, the whole body becomes discoloured or disfigured.^[3]

The sapta dravya involved in kushta are tridosa, twak, rakta, mamsa, and lasika.[4]

The classifications of kushta are according to severity, according to involvement of dosha etc *Kitibha* is included one among *ksudra kushta* by *Caraka*, ^[5] *Susrutha*, ^[6] *Ashtangasangraha*, ^[7] *Ashtangahrdaya*, ^[4] *Madhavanidana*. ^[8]

Kitibha, the word meaning in Sabdkalpadruma is "kitiriva bhati" that means which appear like"kiti"

The term *kitibha* is constituted by the combination of "*kiti*" and "*bha*". The word "*kiti*" has got different meanings like a hog/louse/bug etc. The word *bhati* refers to color.

In *Vachaspathyam* the meaning of *Kitibha* is given as "*Kikitribha bhati krishnatwam*". The word "*krishnatwam*" has got meanings like *syama varna*, evil look, wicked look etc. Hence the meaning can be as evil like a hog.

Nidana and Poorvarupa

The *kitibha kushta* is included in amoung *ksudra kushta*, no specific *nidana* and *purvarupa* is mentioned for *kitibha* hence the *samanya nidana and piurvarupa* of *kushta* is accepted as the *nidana and purvarupa* for *kitibha kushta*. *Charaka* included *kitibha* as a symptom of *Dooshivisha*. ^[9] So the factors attributed in the manifestation of *dooshivisha* should also consider.

Table 1: Lakshana of kitibha kushta by various acharyas.

Lakshana	$AH^{[4]}$	Susrutha ^[6]	Charaka ^[5]	$AS^{[7]}$	Kasyapa ^[10]	$BP^{[11]}$	$YR^{[12]}$	M.Ni ^[8]
Rooksham	+	-	-	+	-	-	-	-
Kinakara sparsam	+	-	+	+	-	+	+	+
Kandu	+	+	-	+	-	-	-	-
Parusham	+	-	+	+	-	+	+	+
Asitam	+	-	-	+	-	-	-	-
Khara sparsam	-	-	+	-	-	+	+	+
Syavam	-	-	+	-	-	+	+	+
Sraavi	-	+	-	-	-	-	-	-
Vrittam	-	+	-	-	-	-	-	-
Ghanam	-	+	-	-	-	-	-	-
Snigdam	-	+	-	-	-	-	-	-
Punah Prasravati	-	-	-	+	-	-	-	-
Krishnam	-	+	-	-	-	-	-	-
Guru	-	-	-	-	+	-	-	-
Vardatecha	-	-	-	+	+	_	-	-
Samutpannam								
Arunam	-	-	_	-	+	-	-	-
Vridhimanti	-	-	-	-	+	-	-	-
Prashanthnicha punarutpadyante	-	-	-	-	+	-	-	-

AH- Ashtangahrdaya, AS- Ashtangasangraha, BP- Bhavaprakasha, Mni- Madhavanidana,

YR- Yogaratnakara

Samprapti (Etiopathogenesis) of kitibha kushta

By the etiological factors *agnimandhya* (Debility in the status of bio fire) and *prathilomatha* (Debility in mobile force) occurs. Further vitiation of *dosha* accelerates the process. If the person has any structural disability (*Srotovaigunya*) at any place the vitiated factors has a

tendency to get localized and this marks the beginnings of specific diseases pertaining to those structures. Another concept of pathogenesis is, due to the *nidana seva* (Etiological factors), incomplete elimination of *sthavara visha* (Inanimate poisons), *Jangama visha* (Animate poisons), *krithrima visha* (Artificial poisons) accumulation of toxin at the body occurs at the *asaya* or *dhatu* level. These toxins will be in a subclinical condition ie encapsulated in *kapha* dosha (*Kaphavarana*). On exposure to secondary aggravating factors like vitiated *desa*, *kala*, *divaswapna*, *ajeerna* etc. the *tridoshas* and *dhatus* got vitiated (*Dosha-dushya sammurchana*) and manifests the disease. By the above process pathogenesis of Kitibha kushta can be explained in the concept of *dooshivisha* (Accumulated poison).

Samprapti ghataka

- Dosha: Kapha(+++), Vata(++), Pita(+)
- Dushya: Rasam(+), Raktam(++)
- Agni: Jadaragni: Mandam, Dhatwagni- Mandam
- Ama: Jadaragnijanya & Dhatwagnijanya
- *Srotas: Rasavaha(+), Raktavaha(++)*
- Srotodushti: Sangam, Vimargagamanam
- Rogamargam: Bahyam
- Udbavasthanam: Aamashyam
- Vyakti sthana: Twak
- Swabhava: Chirakari
- Ojas: Madyamam

Lichen Planus- Modern description

Leichen in Greek means "tree moss", and planus in Latin means "flat". [15]

Lichen planus is an autoimmune inflammatory skin condition, characterized by pruritic, violaceous, shiny, flat-topped, polygonal papules of variable sizes.^[16] It is a cell mediated response of unknown origin. Lichen planus is a common inflammatory papulosquamous disorder that affects skin, mucous membranes, nails and hair distributed predominantly on flexures and healing with pigmentation.

Epidemiology

Incidence

LP is a common condition seen in clinical practice and occurs in 0.8-1 % of the general population. Familial incidence is also noted and tends to be more severe and have a protracted course. [15] No significant geographical variation in frequency exists for lichen planus.

Sex

No significant differences in incidence are noted between male and female patients, but in women lichen planus may present as desquamative inflammatory vaginitis.^[17]

Age

More than two thirds of lichen planus patients are aged 30-60 years; however, lichen planus an occur at any age. [18]

Etiology and Pathophysiology

The exact cause of lichen planus is still unknown but it is immunologically meditated. The initiating antigen is unclear; however, Langerhans cells process the antigen to T lymphocytes, resulting in an epidermotropic infiltrate. Histologically, the inflammation is described as a Lichenoid infiltrated, effacing the dermo-epidermal junction. Those who have family history of lichen planus an increased frequency of human leukocyte antigen B7 (HLA-B7) has been noted. Others have found an association between idiopathic lichen planus and human leukocyte antigen DR1 (HLA-DR1) and human leukocyte antigen DR10 (HLA-DR10).

Lichen planus is also found in other diseases of altered immunity which includes ulcerative colitis, alopecia areata, Vitiligo, deramatophytosis, morphea, lichen sclerosis, and myasthenia gravis. An association is noted between LP and hepatitis C infection, [19] chronic active hepatitis, and primary biliary cirrhosis. [20] Another important factor which causes onset or exacerbation of LP is stressful events. [21]

Clinical features

The 8P features of lesions are popular, polygonal, purple, plentiful, polished, pruritic, planar which heals with pigmentation.

Lesion initially develops in the flexural surfaces of upper and lower limbs. Pruritus depends of varying severity, depending on the type of lesion and the extent of involvement. Around

50-60% patients with generalized lichen planus tends to have Oral lichen planus. Oral lesions that may be asymptomatic, with burning sensation, or even painful. Older lesions exhibit reticulated networks of whitish lines on their surface named as "Wickham striae" on buccal mucosa. LP demonstrates Koebner's (Isomorphic) phenomenon. Apart from oral cavity, lichen planus can affect the mucosal surfaces of the vagina, esophagus, conjunctiva, urethra, anus and nose. [15]

The clinical presentation of lichen planus has several variations as follows

Hypertrophic lichen planus, Atrophic lichen planus, Erosive/Ulcerative lichen planus, Follicular lichen planus, Linear lichen planus, Vesicular and bullous lichen planus, Actinic lichen planus, Lichen planus pigmentosus, Lichen planus pemphigoides.

Malignant transformation has been reported in ulcerative oral lichen planus (OLP).^[22] Cutaneous hypertrophic lichen planus may cause squamous cell carcinoma.^[23] Pruritic and painful vulvar lichen planus has been a precursor to Squamous cell carcinoma in a small number of cases.

Diagnosis

Diagnosis is mainly from the clinical features. Direct immunofluorescence study reveals globular deposits of immunoglobulin M (IgM) and complement mixed with apoptotic keratinocytes. No imaging studies are necessary. Biopsy is the confirmatory laboratory test for LP.

Treatment

In the treatment of the lichen planus the main objectives are to relieve itching, control the spread of lesions, and to suppress lesions early to prevent post-inflammatory pigmentation. As the stress is an inevitable factor in the disease especially for women proper counseling about the nature of disease is also needful. Topical steroids and oral anti histamines are the first line for reducing the itching and flattening the lesions. The prevention of itching also helps in the spreading of lesions, by reducing the tendency for Kobner's phenomenon due to scratching. A second choice would be systemic steroids for symptom control and possibly more rapid solution. Immunosuppressants are used to modulate the immune system. Both PUVA (psoralens+ UVA 320-400 nm) therapy and narrow-band phototherapy are effective and useful in steroid-dependent patients. The treatment plan and the combination of above changes in different types and presentations of lichen planus such as localized LP, Extensive

LP, Hypertrophic LP, Oral LP, etc. [15,16] Patients with widespread lichen planus may respond to narrow-band or broad band UV-B therapy. [24]

Ayurvedic management

The *kushta* is a disease which should treat with *sodhana* (Purifactory) and *samana* (Palliative) therapies. Since most of the skin diseases manifests from the *nidana* (Causative factors) which may *aharaja* (From diet), *viharaja* (From regimens), *aacharaja* (Misconducts), the treatment should start from the *nidana parivarjana*.(Avoiding causative factors) Also the each factor participated in the *samprapthi* (Pathogenesis) should be addressed properly. In the *kitibha kushta* which we consider as lichen planus the quantitative *doshadushti* is large, so the treatment includes *snehana* therapy, *swedana* therapy, *sodhana* therapy and *rasayana* therapy along with *sathwavajaya* therapy. No *acharya* mentioned any special treatment protocol for *kitibha*, hence general line of treatment for *kushta* can be adopted here. In the general line of management, in *Charaka samhitha*, ^[5] *Ashtanga sangraha*, ^[26] *Ashtanga hrdaya*, ^[27] specified for *kushta* having *vata* predominance *ghrita* is prescribed, *vamana karma* is indicated where *kapha* is dominant, *virechana karma* and *raktamoksha* for *pitta dominance*. For alleviating the *doshas* and those who are contraindicated for *sodhana karma*, *samana* treatments like *kashyapana*, *lepana*, *parisheka*, etc, were indicated.

While considering the *dosha* predominance the assessment of *rakta dushti* is also very important. Therefore in the first line of treatment itself purification of the *rakta dhatu* (expel mala and digest *aama* in *rakta dhatu*) should consider. The peripheral lesions with *vata kapha* dominance can be alleviated through *snehana-swedana* and *sodhana*. Pruritus is inevitable in most of the cases; topical applications to reduce severe itching are also significant. As the lichen planus is an autoimmune disease and the tendency for recurrence is present the medications having rasayana nature should also include in the treatment protocol. The *kitibha* is mentioned as a lakshana of *dooshivisha* also. Therefore in the treatment the concept of *dooshivisha* also should consider.

Pathya-Apathya^[3,26,27]

In the treatment of *kushta pathya-apathya* plays an important role. *Pathya* means the wholesome diet and regimens that should follow while the *apathya* means the unwholesome and unsuitable food and regimens that causes or aggravates the condition. For kitibha kushta the general *pathya* and *apathya* mentioned in the *kushta chikitsa* is used. Specialized diet or

regimens for *kitibha kushta* is not mentioned by any *acharaya*. As the diet and regimens also act as a key modality in the prevention and management it should be consider as important as the medicine. The *pathya* and *apathya* is listed below,

Table 2: Pathya and Apathya in kushta.

Pathya	Apathya				
1. Jeerna Sali 2. Jangala mamsa 3. Laghu anna 4. Tiktarasa shaka 5. Mudga Yusha 6. Kulattha Yusha 7. Bhallataka 8. Triphala 9. Ushnodaka 10. Ghrita 11. Purana dhanya 12. Mudga 13. Patola 14. Shastika 15. Yava 16. Godhuma 17. Kodrava 18. Shyamak 19. Masoora 20. Arahara 21. Khadira 22. Bakuchi 23. Nimbayukta Anna 24. Mathita 25. Hitachara	1. Amla rasa 2. Dugdha 3. Dadhi 4. Anupamamsa 5. Tila 6. Lavana rasa 7. Katu rasa 8. Masha 9. Guru anna 10. Guda 11. Divaswapna				

Only in the oral lichen planus food restrictions are mentioned in modern medicine to avoid further irritation of buccal mucosa. In order to avoid nutritional deficiencies vitamin supplements are also included in the treatment. To control the symptoms and to improve the health of skin maintain adequate water consumption, include more fruits and vegetables with more fiber content in the diet, provide vitamins and minerals supplements for deficiencies and maintain a healthy lifestyle.

DISCUSSION

Kitibha kushta is a skin disease which included among the kshudra kushta in Ayurvedic classical textbooks. Kitibha kushta merely correlated with many dermatological conditions. Morphologically the lesions of lichen planus resembles with kitibha kushta. The lesions of

kitibha kushta which mentioned by various *acharayas* can be compared with symptoms of lichen planus like.

Table No. 3: Comparison between Kitibha Kushta and Lichen planus.

Sl. No.	Lakshanas of kitibha kushta	Signs and Symptoms of lichen planus			
1.	Ruksha/Parusham	Dryness, Rough, lichenified lesions			
2.	Kinakharasparasam/	Rough, irregulatity, hyperkeratinisation and			
۷.	Kharasparsam	thickness, of skin on touch			
3.	Kandu	Itching/ pruritus			
4.	Asitham/Aruna/Syava/	Purple, violaceous, bluish black			
	Krishna	discoloration			
5.	Vritha, Utsanna mandala	Polygonal papules			
6.	Punah prasaravati	spreading nature and chronicity			
7.	Sraavi	Oozing seen in erosive, ulcerative type			
8	Ghanam	Hypertrophy and Lichenification			

Though the *kitibha* is dominant with *vatha* and *kapha dosha*, there is a *tridosha dusti* in every skin disorders. Considering the *sapta dushyas* involvement and *rakta dushti* only we approach a patient. Since lichen planus has an autoimmune association in it is pathogenesis the complete cure is not possible. Chronic intake of corticosteroids and immunosuppressants affects the overall quality of life of the patients as well. They might suffer from the complications later in their life. Ayurvedic treatment aims to control the relapses and remissions also through rasayana therapy.

CONCLUSION

This article concludes the whole review of *kitibha kushta* with special reference to lichen planus. Skin diseases including lichen planus, have a substantial impact on public health, affecting individual's physical, psychological, and social well-being. In Ayurveda, we have many types of skin diseases mentioned in our classical textbooks. It paves a holistic approach in the diagnosis and treatment of diseases. *Kitibha* is a disease mentioned in *brihatrayees* and *laghutrayees* in the *kushta prakarana*. In the clinical practice *kitibha* can be correlated with many skin disorders like psoriasis, dry eczema, lichen planus, lichen simplex chronicus, prurigo nodularis etc. Morphologically the lesions a have much resemblance with lichen planus. By analyzing the *dosha-dhatu-mala-srotos* involvement also, *kitibha kushta* can be correlated with lichen planus. So in the light of *kitibha kushta* we can manage the lichen planus accordingly. Ayurvedic treatment improves the overall quality of life of the patients as well, since many people who have autoimmune skin diseases are suffering from its complications and chronicity too.

Source of support: Nil.

Conflict of interest: None.

REFERENCES

- 1. Henry Zou. Steven daveluy. Lichen planus after COVID-19 infection and vaccination. Arch Dermatol Res, 2023; 315(2): 139-146.
- Sri Raja Radhakantha Deva. Sabdakalpadrumam-. Rashtiya Sanskrit Sansthan New Delhi,
 2018; 1: V.
- 3. Vaidya Jadavji Trikamji Acharya. Susrutha Samhitha with the Nibandhasangraha Commentary. Reprint edition. Chaukhambha Orientalia. Varanasi. Chikitsasthana. chapter, 2014; 9: 442-448.
- 4. Dr. Brahmanand Tripathi. Ashtanga Hrdayam of Srimadvagbhata. Reprint edition. Chaukhamba Sanskrit Pratishthan. Delhi. Nidanasthana, 2014; 14: 527-536.
- 5. Dr. Ram Karan Sharma. Vaidya Bhagwan Dash. Agnivesa's Caraka Samhitha. Reprint edition. Chouwkhamba Sanskrit Series Office. Varanasi. Chikitsasthana, 2010; 3, 7: 318-363.
- 6. Vaidya Jadavji Trikamji Acharya. Susrutha Samhitha with the Nibandhasangraha Commentary. Reprint edition. Chaukhambha Orientalia. Varanasi. Nidanasthana. chapter, 2014; 5: 282-289.
- 7. Dr. Shivaprasad Sharma. Ashtangasamgraha of Vrddha Vagbhata. Chouwkhamba Sanskrit Series Office. Varanasi. Nidanasthana, 14: 408-414.
- 8. Dr.Brahmananda Tripathi. Madhavanidanam of Sri Madhavakara.Chaukhamba Surbharati Prakashan. Varanasi, 2, 49: 194-220.
- 9. Dr. Ram Karan Sharma. Vaidya Bhagwan Dash. Agnivesa's Caraka Samhitha. Reprint edition. Chouwkhamba Sanskrit Series Office. Varanasi. Chikitsasthana, 2010; 4, 23: 333.
- 10. Rajaguru Pt Hemaraja Sharma and Vidyotini. Sri Satyapal Bhishagacharya. Kasyapa Samhitha. Vriddha Jeevaka Tantra revised by Vatsya. Chaukhambha Sanskrit Series, 1953.
- 11. Dr. G. S. Pandey. K. C. Chunekar. Bhavaprakasha Nighantu of Bhavamishra. Poorvargha, Chaukhambha Sankrita Samsthan. Varanasi, 2004; 11.
- 12. Asha Kumari and P. V. Tewari. Yogaratnakara. Chaukhambha Bharati Academy, Varanasi, 2010; 1.

- 13. Dr. P. M. Madhu. Consultations in Ayurvedic Dermatology. Kunnath Mana Ayurvedic Books. Thrissur, 4, 35: 79-81.
- 14. Dr. Brahmanand Tripathi. Ashtanga Hrdayam of Srimadvagbhata. Reprint edition. Chaukhamba Sanskrit Pratishthan. Delhi. Uttarasthana, 2014; 35: 1147-1148.
- 15. Venkataram Mysore. S. Sacchidanand. K, h. Satyanarayana Rao. Dermatological Diseases A Practical Approach. New Delhi. Wolters Kluwer, 6: 66-70.
- 16. Neena Khanna. Illustrated synopsis of Dermatology and Sexually transmitted diseases. edition. Gurgaon. Elsevier, 4, 6: 68
- 17. Murphy R, Edwards L.Desquamative inflammatory vaginitis: what is it?.J Reprod Med, 2008; 53(2): 124-8.
- 18. Balasubramaniam P, Ogboli M, Moss .Lichen planus in children: review of 26 cases. Clin Exp Dermatol, 2008; 33(4): 457-9.
- 19. Shengyuan L, Songpo Y, Wen W, Wenjing T, Haitao Z, Binyou W. Hepatitis C virus and lichen planus: a reciprocal association determined by a meta-analysis. Arch Dermatol, 2009; 145(9): 1040-7.
- 20. Korkij, Chuang TY, Soltani K. Liver abnormalities in patients with lichen planus. A retrospective case-controlstudy. J Am Acad Dernatol, 1984; 11(4 Pt 1): 609-15.
- 21. Manolache L, Seceleanu-Petrescu D, Benea V. Lichen planus patients and stressful events. J Eur Acad Dermatol Venereol, 2008; 22(4): 437-41.
- 22. Gonzalez-Moles MA, Sully C, Gil-Montoya JA. Oral lichen planus: controversies surrounding malignant transformation. Oral Dis, 2008; 14(3): 229-43, 1411-8.
- 23. Knackstedt TJ, Colins LK, Li Z, Yan S, Samie FH. Squamous Cell Carcinoma Arising in Hypertropic Lichen Planus: A Review and Analysis of 38 cases. Dermatol Surg, 2015; 38: 41(12).
- 24. Pavlotsky F, Nathansohn N, Kriger G, Shpiro D, Trau H. Ultraviolet-B treatment for cutaneous lichen planus: our experience with 50 patients. Photodermatol Photoimmunol Photomed, 2008; 24(2): 83-6.
- 25. Pavlotsky F, Nathansohn N, Kriger G, Shpiro D, Trau H. Ultraviolet-B treatment for cutaneous lichen planus: our experience with 50 patients. Photodermatol Photoimmunol Photomed, 2008; 24(2): 83-6.
- 26. Dr. Shivaprasad Sharma. Ashtangasamgraha of Vrddha Vagbhata. Chouwkhamba Sanskrit Series Office. Varanasi. Chikitsasthana, 21: 546-559.
- 27. Dr. Brahmanand Tripathi. Ashtanga Hrdayam of Srimadvagbhata. Reprint edition. Chaukhamba Sanskrit Pratishthan. Delhi. Chikitsasthana, 2014; 21: 482-496.