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Potential implications of *ayurveda* in the management of lichen amyloidosis: A clinical case study

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ABSTRACT: The skin is the largest organ in our body. The skin acts as a barrier from physical, chemical, biological toxins and also maintains body temperature. Skin diseases fall under a group of disorders which are more prevalent in general practice. Lichen amyloidosis is the most common form of primary localized cutaneous amyloidosis. The cause is unknown, but the condition is thought to be induced by scratching. It is presented mostly in the 5th or 6th decade of life. Kushtha is the general terminology to describe skin diseases in ayurveda. According to ayurveda, change in lifestyle plays a major role in the manifestation of kushtha. Also, kushtha is considered as a Mahaaroga, as sapta-dhaatus are involved in the pathogenesis of kushtha. Repeated sodhana-karma is advocated in the management of kushtha. And samana-cikitsa also plays a significant role in alpa-dosha-harana. This paper highlights a case study of kitibhakushtha treated with classic ayurvedic principles focused mainly on snehapaana and sodhana. By doing treatments based on these principles this patient got considerable relief.

Key words: Lichen amyloidosis, Kitibha kushtha, sodhana

Introduction

Skin is the integumentory tissue covers our body composed of seven dhatus. Ayurveda says "Dosha dhaatu mala moolam hi sareeram"[1]. Any derangement in the functioning of dosha, dhaatu and mala leads to diseases vakshyante raktadoshajaa, which means vitiation of raktadhaatu leads to kushtha/tvak-vikaaras[2]. Nidaana like mithyaahaara-vihaara and maanasika bhava vitiates tridosha, that further leads to the affliction and aggravation of rasa, rakta, maamsa and laseekaa[3]. Each dosha vitiation elicits the different lakshanas in the tvak. According to Caraka Aacaarya, kitibha kushtha is one of the rakta-pradoshaja vikaaras caused by the vitiation of vaata and kaphadosha in excess, having features like syaava varna (blackish brown colour), kinakhara-sparsa (rough like callus), parusha (dryness), rooksha-pidakaa (skin eruption) and kandu (itching)^[4]. The main line of treatment of kushtha is repeated sodhana. The doshas which are pacified by sodhana never re-occur. Virecana is the sodhana karma for raktaja-vikaara to eliminate doshas from their root^[5].

Plaque lichen amyloidosis is the most common form of primary localized cutaneous amyloidosis. Lichen amyloidosis typically presents as multiple pruritic, firm, hyper pigmented, hyper keratotic papules on the shins that later give the appearance of a rippled pattern. Over time, the papules become thickened plaques which are very difficult to get cured. Hence it, is the need of an hour to search effective, adequate and safe ideal remedy from *ayurveda* to cure the disease from its root.

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Patient information

Case report

A 60-year-old male patient, working in Merchant navy as a Chief engineer, came to the OPD of Department of Kayachikitsa, Govt. Ayurveda College, Thripunithura. His presenting complaints, were blackish, thickened, itchy dry skin lesions predominantly over the bilateral lower limb, the shin, the arms and the lower back region aggravated for about 3 years.

At the age of 20, he noticed a thickened, irregular bordered, blackish discoloration on his right thumb, and some black moles beneath the thumb. He consulted a dermatologist in Ernakulam and took oral medication. But after taking those medicines, he had sudden hair loss. So, he stopped the medication and consulted a traditional ayurvedic doctor near his residence. He responded well to the treatment and hence continued the treatment for almost 5 years and he got complete relief for his complaints.

At the age of 34, he suddenly developed blackish discoloration throughout the whole face, except nose and bilateral lower limbs. He consulted an ayurvedic physician and took medication. Symptoms got relieved in 2 years but blackish discoloration persisted over his legs. Then he went for job in merchant navy, On account of his lifestyle blackish discoloration reappeared. He also noticed that every time when he came back home for leave, he gets affected with fever and cold, followed by papules over both shin, arms and low back region. Scratching was very irresistable. Presently there are itchy thickened blackish skin over both the hands. He took OP medicines and got considerable relief, because of which he came here for better management.

History of past illness

No H/O T2DM/ HTN/ DLP / Thyroid dysfunction.

- H/O Asthma at the age of 3 years
- H/O Jaundice at the age of 5 years

Family history

- Father had History of Asthma.
- Mother had H/O itchy skin lesions below knee
- Brother developed some skin problems recently.
- Son has asthma complaints.

Personal history

- Diet-Foods that are reheated and frozen are consumed more often.
- Bowel: regular, once per day [occasionally hard stools]
- Appetite: good
- Micturition: within normal limits
- · Sleep: sound
- Allergies: dust allergy [sneezing, breathing difficulty]
- · Habits: nil
- · Addictions: nil

Clinical finding

- Integumentary system examination
- Morphology:
- Type of lesion: hyper pigmented, hyper keratotic papule
- Site of lesion: bilateral shin and lower limb, low back regions, both the arms and forearms.
- Number: numerous
- Shape: circular
- · Colour: black, grey
- Distribution: asymmetric
- Itching: +++
- Scaling: Absent
- Associated complaints:
- Hair: normal
- Nail: normal

Time Line

At the age of 20. At the age of 34 • In noticed a thickened, irregular bordered, blackish discoloration on his right thumb • some black moles beneath the thumb • suddenly developed blackish discoloration over the whole face except nose. • blackish discoloration reappeared over both the hands. He also noticed that every time when he came back home on leave, he gets affected with fever and cold, which was followed by skin lesions. • Continued oral Ayurvedic medications • Continued oral Ayurvedic medications • Thickened blackish papules over both shin, arms and low back region. • If he starts to scratch the lesion he won't be able to stop it due to itching sensation

Nidana

Analysing the *nidaana* showed that there was intermittent use <u>seeta</u> and <u>ushna</u> both in <u>aahaara</u> and <u>vihaara</u>. Akaala <u>sayana</u> and <u>ratri</u> jaagarana were also noted. All these can be the causes of vitiation of <u>rakta-dhatu</u>.

Nidaana seva → Agni vyaapaara-vikrti → Anna vaha-sroto-dushti → Tridosha

Rasa, rakta, maamsa, lasikaa \rightarrow vikrtirasamaarga-avarodha in tvak \rightarrow Pidakaa with kandu, daaha, in sarvaanga \rightarrow Kitibhakush<u>t</u>ha.

Sampraapti

Beeja dushti

Anoopa desa

Aahara: akaala, seetha, vidaahi aahara Vihara : seetha ushna akrama sevana, raatri jaagarana, aatapa seva, akaala sayana

Involvement of tridosha is vaatapradhana-kaphamadhya-pittaheena-dushti.

Diagnostic assessment

$Diagnostic\ methods$

Physical examinations

Blackish hyper pigmented, hyper keratotic papule over bilateral shin and lower limb, low back, both the arms and the forearms.

Laboratory testing

Blood investigation [18-01-2023]

Hb - 13.4 mg/dl

Absolute eosinophil count: 980 cell/microlitre

Figure 1 Skin lesions of both legs at the time of admission





Figure 2 Skin lesions of both upper limbs at the time of admission





Diagnostic challenges

Since the patient is a 60-year-old male, presented rough, blackish hyper pigmented hyper keratotic plaques and which are numerous in number. Lichen amyloidosis is typically present in the 5th or 6th decade of life, and more common in men and in people with darker phenotypes. Lichen amyloidosis typically presents as multiple, pruritic, hard, hyper- pigmented, hyper keratotic papules on shins mainly. So reached to the diagnosis of lichen amyloidosis.

These papules have a *kinakhara-sparsa*, *asita*[black] and *parusha* [rough] in nature. Found *doshaadhikya* as *vaatakapha*. Made diagnosis of *kitibha-kushtha*. Also, because this

patient is working in the merchant navy, he is constantly exposed to the sea breeze, which dries out his skin and body.

Differential diagnosis

Ayurveda

- Carma kushtha
- Eka kushtha
- Sidhma kushtha

Modern: Lichen planus

• Prurigo nodularis

Prognostic characteristics

Since it is chronic in nature, along with continuous exposure to *nidaanas* it is not completely curable. But can be manageable. Strong family history of asthma and skin lesions running in the family is also a risk factor for bad prognosis.

Therapeutic intervention

Treatment adopted

- Aama paacana
- Aarohana-snehapaana
- Virecana
- Baahya-prayoga
- <u>S</u>amanoushadhi
- Pathyaapathya

Snehapaana was done for seven days from the initial dosage, 25 ml increasing slightly everyday upto 130 ml on the final day with the intermittent doses of 35, 50, 80.90 and 110 mls.

Table 1 Internal medication						
Date	No	Name of medicine	Dose of medicine and time of administration	Remarks		
17-01-2023	1 2	Guluchyadi Kashaya ^[6] Aragwadharishtam	90ml BD Before food 25ml two times a day after food	Digestion corrected		
	3	Shaddharanam gulika ^[7]	1-0-1 with Kashaya			
24-01-2023	1	Snehapana with DasamoolaAmruthaadi taila ^[8]	Aarohanamaatra	Hyperpigmentation reduced. Skin became softened		
4-02-2023	1	Manibhadragula ^[9] along with <u>s</u> arkara	20g	19 vegas		

Table 2 Baahya-cikitsa						
Date	No	Name of procedure	Duration of procedure	Remarks		
2-2-23	1	Abhyanga with Guggulumarichadi tailam ^[10] along with potalisweda with siddharthakaa snana churna ^[11]	3 days	Skin becomes softer		
11-2-23	2	Takradhaara with Kashaya of Aamalaki + Aaragwadha	7 days	Hardness reduced		

Follow-up and outcome

After snehapaana

Figure 3 Changes in the skin lesions of both legs after Snehapaana





Figure 5 Changes in both the legs

Figure 6





During potali sweda

Figure 4 Changes in both the arms









Figure 7
Changes in the lower limb at the time of discharge





At the time of discharge

At the time of discharge, the roughness and thickness of the low back region were reduced by 80%. Roughness and itchy papules on the bilateral arms got reduced. Normal skin can be visible between the blackish rough skin over the bilateral lower limbs. The severity of itching also got reduced.

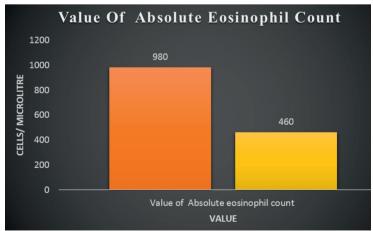
Result and discussion

In ayurvedic classics skin diseases are mentioned under the context of *kushtha*, *visarpa*, *and kshudraroga*. *Kushtha* is considered as a *mahaaroga* by *Ayurveda Acaaryas*. And also, *kushtha* is explained as *deergharogas*. But a wide variety of treatment applications is told by

Figure 8
Before & After Treatment changes



Figure 9
Value of Eosinophil Count before & After the Treatment



Aacaaryas for the management of kushtha. This case was diagnosed as Kitibha-kushtha, which is vaata-kapha predominant^[12]. On history taking patient had irregular dietary pattern including untimely food intake, use of refrigerated food, reheated food, guru and viruddhaahara. Vihaara such as seetoshna-akrama-sevana and raatri-jaagarana. Along with this he had a strong family history of skin diseases and asthma. Theses nidanas caused agnidushti. That further leads to tridosha-vikrti along with vitiation of rasa, rakta, mamsa and laseeka. Vikrta rasa caused maagaavarodha in tvak manifested as pidakaa with kandu in the lower limbs, low back region and arms. In the beginning the patient was given Guloochyadi Kashaya and Shaddharanam tablets for aamapaacana. Aragwadharishta was also given in the first phase since arishta is prepared by paaka and it is definitely having a paacana svabhaava. (Table 1).

Then he was administered with snehapaana along with Dasamoola Amruthaditaila, mentioned in Ashtanga hrdaya Ciikitsaa-sthaanam. Since the disease is vaata-kapha predominant, taila was selected for snehapaana. The ingredients of Dasamoolaamruthadi taila are also vaatakapha-hara. After 7 days of snehapaana itself, the itching and the discoloration reduced. Since the skin lesions were more pronounced on adhobhaaga, virecana was done, Manibahadra gula was selected for virecana. With 19 vegas madhyama samyakyoga was obtained. To prevent vaataprakopa after virecana we had given peyaadi-krama as per madhyamasuddhi, along with one teaspoon ghee. After virecana Guggulumarichadi taila was given for abhyanga which is also told in the context of kushtha-cikitsa. Guggulu is vaatakapha-hara in nature, and marichaadi has teekshnaguna also.

Normally *sweda* is contra indicated in *kushtha*, but for reducing the *khara-bhaava* of skin, we applied *potali sweda* with Sidhaarthaka snaana

choorna. Embryologically, neurons and epidermis are originated from ectoderm. The concept of skin brain axis further substantiates the role of stress in aggravating skin diseases and vice versa. Considering this we did 5 days <u>sira-takradhaara</u> followed by full body <u>takradhaara</u> with <u>aaragwadha</u> and <u>aamalaka</u>. (Table 2) Since the disease has <u>cirakalanu bandhatvam</u> it is difficult to get complete cure.

On discharge, he was advised to include fresh fruits and vegetables like *patola*, *aamalaka*, *koosmanda* in his diet as it improves the skin softness. Also advised not to take reheated as well as refrigerated food. He was also educated to avoid deep fried foods, baked items, spicy foods and pickles, and improper sleep pattern as well. Patient was advised to take Mahatikthakam ghritham 10g at bed time and to do *abhyanga* with Eladi tailam.

Strength of this treatment modality: By the IP management, stress of the patient was reduced, and as a result there was reduction in symptoms also.

Weakness of this treatment modality: Since the patient had less leave for treatment, we could not give him *rasaayana* medication.

Primary take away lesson: In modern as well as ayurvedic perspective, skin diseases and lifestyle of the patient is very much interrelated. But through ayurvedic management it is possible to cure.

Patient perspective

Patient got subjective relief in the symptoms and was happy and satisfied at the time of discharge.

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