

Ayurvedic management of *Eka Kushta* w.s.r to Psoriasis: A Case study

Case Report

Avinash Reddy Mada^{1*}, Srivishnu Priya Mangu¹, Ragamala K C²

1. P.G. Scholar, 2. Assistant Professor, Department of Kaumarabhritya, S.V.Ayurvedic College and Hospital T.T.D., Tirupati, Andhra Pradesh, India.

Abstract

Eka Kushta is a type of *Kshudra Kushta* occurring mainly due to imbalance of *Vata* and *Kapha Doshas*, resembling Psoriasis in its clinical manifestations. Psoriasis is one of the most common dermatologic diseases, affecting up to 2% of world population. Childhood psoriasis is relatively common with prevalence of 1-3% of general population. Psoriasis is an immune mediated disease clinically characterized by erythematous, sharply demarcated papules and rounded plaques covered by silvery scales. The most commonly involved areas are the elbows, gluteal cleft, knees and scalp. In *Ayurveda* various treatment modalities have been described in the management of *Eka kushta* which includes *Shodana* and *Shamana*. Hence, in the present case report a 8 year male child who came to *Kaumarabhritya*. Out Patient Department presenting with symptoms of *Eka kushta* on elbows, knees, hands and feet, was treated with *Shodana chikitsa* i.e, *Virechana* followed by *Vasti* and *Shamana chikitsa* i.e internal medication. The symptoms were assessed with the help PASI score at pre and post therapy, and the results were noted. After treatment satisfactory results were observed.

Key Words: *Eka kushta*, Psoriasis, PASI Score, *Shodana chikitsa*, *Shamana chikitsa*.

Introduction

In *Ayurvedic* texts there is wide description of skin disorders described under a single term *Kushta*. *Eka kushta* has been mentioned under the heading of *Kshudra kushta*. The causative factors of *Eka kushta* are same as *Kushta*. Dietary factors like *Viruddha ahara*, excessive consumption of *Drava*, *Snigdha*, *Guru ahara*, *Navanna*, fish, curd, salt, sour substances, *Vegadharana* specially *Vamana*, and other sinful acts are major aetiologies (1).

The main clinical features of *Eka kushta* are *Aswedanam* (Absence of sweating), *Mahavastu* (extends skin lesion), *Matsya shakalopam* (skin scales resemble the scales of fish) (2). These clinical features are similar to that of psoriasis. Owing to this fact psoriasis can be treated on the line of treatment of *Eka kushta* which has been adopted to this case study. Repeated *Samsodhana* along with *Samshamana* is the line of treatment in all *kushtas*.

Psoriasis is one of the most common dermatologic diseases, affecting up to 2% of world population (3). The word Psoriasis is derived from Greek word Psora means itching and sis means acting condition. Childhood psoriasis is relatively common

with prevalence of 1-3% of general population (4). Psoriasis is a immune mediated disease clinically characterized by erythematous, sharply demarcated papules and rounded plaques covered by silvery scales. The most common variety of psoriasis is called plaque type (5).

The aetiology of psoriasis is still poorly understood, but there is clearly a genetic component to the disease. 30-50-% of patients with psoriasis report a positive family history. Psoriatic lesions contain infiltrates of activated T cells that are thought to elaborate cytokines responsible for keratinocyte hyperproliferation, which results in the characteristic clinical findings (6).

Auspitz's sign (pinpoint bleeding when scale is removed), Koebner phenomenon (new skin lesion appears at the site of trauma), is a valuable diagnostic feature (7). Patients not only have physical problem but also suffer mental and social distress. In conventional medicine use of corticosteroids, phototherapy has been practised which has adverse effects on long term usage. Therefore, there is need to develop management of psoriasis which can give benefit on a long term without any adverse effects and reoccurrence.

Aim and Objective

- To evaluate the role of *Samshodana* and *Samshamana karma* in management of *Eka kushta*.

Place of study

The present case study was done in department of *Kaumarabhritya*, S.V. Ayurvedic Hospital, Tirupati, Andhra Pradesh.

* Corresponding Author:

Avinash Reddy M

P.G. Scholar,

Department of Kaumarabhritya,

S.V.Ayurvedic College and Hospital T.T.D., Tirupati, Andhra Pradesh, India.

Email Id: reddyavinash771@gmail.com

Case Report

Basic information of the patient

- Age – 8 years
- Sex - Male
- Religion – Hindu
- Socioeconomic status – middle class

Pradhana Vedana (Chief complaints)

Child's parents presented with the complaints of Erythematous, scaly lesions on both elbows, hands, knee, foot from 1 year of child's age, associated with difficulty in holding objects, and reduced range of movements of interphalangeal joints of both hands since 1 year.

Vartamana vyadhivritta (History of present illness)

The child was asymptomatic till 1 year of age, after that he gradually developed reddish scaly lesions over both feet, later gradually progressed and involved his knee, elbow, palm. There is severe itching, burning sensation, and blood discharge on scratching. Also, since 1 year, the child developed difficulty in holding objects, and decreased range of movements of fingers was present. Child was on medication which provided symptomatic relief, and symptoms aggravated with the discontinuation of the medication. Hence, the child came to *Kaumarabhritya* Department of S.V. Ayurvedic Hospital and was treated on Out Patient basis. Later he was admitted for further care.

Purva Vyadhivritta (history of past illness)

Child has no significant history of any burn, or trauma signifying Koebner's phenomenon.

Kulaja Vritta (Family history)

Child's father had similar complaints in his childhood, but later symptoms were reduced after treatment.

Vaiyaktikavritta (personal history):

- Appetite - Good
- Bowel - Regular (once in a day)
- Sleep - Disturbed due to itching
- Food habits - Habit of eating guru ahara (heavy) like curd, snigdha (oily) foods, sour and salty foods

On examination

- Vitals were normal (Pulse rate-75 beats per minute, Respiratory rate – 20 breaths per minute, Blood pressure – 120/80)
- Cardiovascular system, respiratory system and per abdomen examination had shown no significant abnormality.
- *Prakriti* was *Vata kaphaja* (based on physical and mental characters)

Ashtavidha Pariksha

- *Nadi* - *Vata Kaphaja*
- *Mutra* - frequency – 5-6 times a day, normal colour (pale yellow)
- *Mala* - Once a day

- *Jihwa* - *lipta* (White Coated tongue which represents *ama* (indigestion))
- *Shabda* - Speech and hearing was normal
- *Sparsha* - *Ruksha* (Dry skin at the site of lesion)
- *Drik* - Normal
- *Aakriti* - *Madyama* (Height – 130 cm and Weight – 26 kg was normal according to age)

Integumentary system examination

- Site - Elbow, Knee, Palm, Foot. The lesion at the site were symmetrical and well demarcated.
- Color - Erythematous with white scaly lesions
- Texture - Dry, Rough (at the site of lesions)
- Mobility - Reduced in interphalangeal joints. (able to flex upto 45 degrees only)
- Auspitz sign - Present

Nidana panchaka

Ayurvedic texts have described various *nidana*, *purvarupa* in the context of *kushta*, but in the present case scenario the following were observed

- *Nidana* - *Bija dushti*, *Viruddhahara* (His father had history of psoriasis).
- *Purvarupa* - *Aswedana* (Absence of sweating), *Kandu* (itching), *Rukshatvam* (dryness).
- *Rupa* - *Aswedana* (Absence of sweating), *Tvak* similar to *Matsyashakalopam* (resembles the scales of fish) on *hasta* (hands), *pada* (foot), *Janu Sandhi* (knee joint) and *Kurpara sandhi* (elbow joint)
- *Samprapti* - *Nidana* causing *Tridosha dushti* (*vata-kapha* predominant), resulting in *shaitilyata* of *tvak*, *mamsa*, *ambu*, *rakta* resulting in *sthana samshraya* in *tvak*, resulting in *Eka kushta*.

Diagnosis

Based on the clinical history and examination the condition was diagnosed as plaque psoriasis (*Eka kushta*). As clinical features resembles the symptoms of *ekakushta* like *Aswedanam* (absence of sweating), *Matsysshakalopam* (like scales of fish), the present case was diagnosed as *Ekakushta*. The line of treatment mentioned in Ayurvedic classics for *kushta* roga are *Nidana parivarjana*, *Prakriti vighatana*, *repeated shodana*, *Snehana*, *Swedana*, *Raktamokshana*, *Shamana*, *lepana*. Hence *shodana* was selected for present study and best results were observed.

Differential Diagnosis: *Kitiba kushta*, *Pityriasis rubra pilaris* (characterized by orange to yellow scales while psoriasis have white scales)

Treatment protocol

Total duration of treatment with follow up - 2 months (*Shodana* – 22 days, *Shamana* - 2 months)

Shodhana therapy

Purvakarma

- *Deepana pachana* : with *Chitrakadi vati* 250mg BD for 5 days
- *Snehapana* : After *Deepana*, *Pachana*, *Mahatikta ghritam* was given for 3 days along with *Saindavalavana*. *Usna jala* was advised to

drink during *snehapana* along with light diet (*Peya*, *Yusa*). Dose of *Ghrita* was given based on the time taken for the digestion of *ghrita* administered on the previous day. After 3 days of *snehapana samyaksnidha lakshanas* was observed.(oily stools, unctuousness of the body).

Table 1: Snehapana and dosage

Day	Quantity
6 th day	30ml
7 th day	60ml
8 th day	90ml

Abhyangam and swedanam

After *Snehapana*, On 9th day local *abhyanga* near lesions with 777 oil and *Atapa swedam* was done for 3 days. After 3 days of *abhyanga* and *Atapa swedam*, *Virechana* was done.

Pradhana karma Virechana

After *Abhyanga* and *Swedana*, On 12th day, *Virechana* was done with 50gm of *Trivrit lehyam*. After 1 hour of *Trivrit lehyam* administration, *Draksha* (Raisins) *Jala* was given internally. Raisins were soaked overnight in water, and in the morning the raisins were mashed and the water was filtered to obtain *Draksha jala*. Total 8 vegas were attained.

Paschat karma

Samsarjana krama was followed for 3days. During this period *Peya*, *Yusa* was given to the child. **Vasti** : After *Samsarjana krama* of 3 days, *Yapanavasti* for 7 days was given.

Table 2: Yapanavasti ingredients and Dosage

Material	Quantity
<i>Madhu</i> (Honey)	4 ml
<i>Saindavam lavanam</i> (Rock salt)	0.5 gm
<i>Sneham</i> (<i>Maha tikta ghrita</i>)	75 ml
<i>Kalkam</i> (<i>Satapushapam</i>)	1 gm
<i>Kashayam</i> (<i>Pancha tikta qwatha choornam</i>)	66 ml

Samshamana therapy

- *Aragwadha syrup* – 10ml BD with water
- *Gandaka Rasayana* – 250 mg BD with water
- *Arogya vardini vati* – 250mg BD with water
- *Mahatiktika ghrita*- 5ml BD
- 777 oil for External application

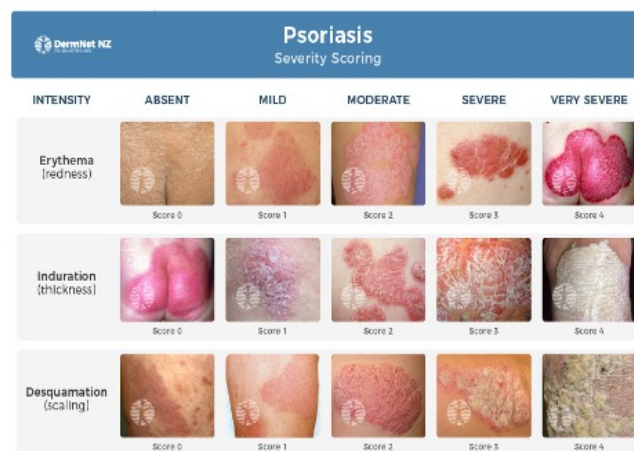
Assessment by PASI Score (8)

The current gold standard for assessment of extensive Psoriasis has been the Psoriasis Area Severity Index (PASI). PASI combines the assessment of the severity of lesions (average redness, thickness, scaling of the lesions each grade on a 0-4 scale) and percentage of affected area. Minimum score is 0 and maximum is 72.

Table 3: Showing the PASI score calculation and gradings

Plaque characteristic	Lesion Severity score	Area involved for each body region affected i.e. Area score	Amount of body surface area represented by the region
1.Erythema	0- None	0- 0%	0.1- Head and neck
2.Induration/thickness	1- Mild	1- 1-9%	0.2- Upper limbs
3.Scaling	2- Moderate	2- 10-29%	0.3- Trunk
	3- Severe	3- 30-49%	
	4- Very severe	4- 50-69%	
	5- 70-89%		0.4- Lower limbs
	6- 90-100%		

Image Showing Psoriasis Severity Scoring (9)



PASI Score Calculation:

1. Head and neck (H) - 0.1 (E_H+ I_H+ S_H) A_H
 2. Upper limbs (U) - 0.2 (E_U+ I_U+ S_U) A_U
 3. Trunk (T) - 0.3 (E_T+ I_T+ S_T) A_T
 4. Lower limbs (L) - 0.4 (E_L+ I_L+ S_L) A_L
- PASI Score = Sum of H + U + T + L**
- E = Erythema
I = Induration/thickness
S = Scaling
A = Area score

Results


Table 4: PASI Score before trial

	Upper limbs	Lower limbs	Total
Erythema	2	2	
Induration/Thickening	2	2	
Scaling	2	2	
Area score	3	3	
Total	3.6	7.2	10.8

Table 5: PASI Score after trial

	Upper limbs	Lower limbs	Total
Erythema	1	1	
Induration/Thickening	0	0	
Scaling	0	0	
Area score	2	2	
Total	0.4	0.8	1.2

Table 6: Images of Patient before and after treatment

Before treatment	After treatment
FIGURE 1.A 	FIGURE 1.B 
FIGURE 2.A 	FIGURE 2.B 
FIGURE 3.A 	FIGURE 3.B 
FIGURE 4.A 	FIGURE 4.B 

Discussion

Here a case of *Eka kushta* has been discussed, which can be correlated to Plaque psoriasis. Psoriasis is a chronic inflammatory disorder, characterised by erythematous plaques, with silvery white scales, that preferentially localize on the extensor surfaces.

Ekakushta is a type of *Kshudra kushta* and have *vata-kapha* dominance and even involvement of pitta i.e

tridosha can be evident from signs and symptoms. All *kushtas* are said to be *Tridoshaja* in nature and treatment should be planned according to strength of doshas (10). The line of treatment mentioned in Ayurvedic classics for *kushta roga* are *Nidana parivarjana*, *Prakriti vighatana*, repeated *shodana*, *Snehana*, *Swedana*, *Raktamokshana*, *Shamana*, *lepana* etc (11).

As *Eka kushta* is chronic and *Bahudoshajanya*, both *Shodana* and *Shamana* therapies have to be followed for better long-lasting results. Considering the above facts, *Shodhana* therapy i.e *Virechana* and *Vasti* was adopted because *Shodhana* expels the doshas out of the body and prevent relapse of disease.

Shodhana Therapy Deepana and Pachana

It was done with *Chitrakadi Vati*. In psoriasis the *Doshas* are situated in *Twak* and *Agni* is also deranged. Therefore *Deepana-Pachana* medicines prior to *Snehapana* are important, which helps in *Ama Pachana* which is one of the causative factor of *Kushta* and also normalizing the *Agni*.

Snehapanam

Snehapana is carried out to facilitate the mobilization of the *Doshas* from the site of its manifestation to the site of elimination i.e. *koshtha*. It helps in *Utklesha* of *doshas*. *Snehapana* also helps to loosen *dosha-dushya* bonding which helps to break the pathogenesis of *Eka kushta*. It is given early in the morning. In present study *Mahatikta ghritha* was used for *Snehapanam*. The ingredients of *Mahatikta ghritha* include *Tikta Rasa*, *Madhura Vipaka* and *Ushna Virya*. It acts mainly on *Kled*, *Meda*, *Lasika*, *Rakta*, *Pitta* and *Kapha* which helps in balancing the vitiated *Doshas* and *Dhatus*. It has properties like, *Raktashodhaka* (Blood purifier), *Kushtaghna* (which cures skin diseases), *Kandughna* (decreases itching sensation) and *Varnya* (improves Complexion) (12). It also has *rasayana* properties due to main ingredient *Amalaki*. *Ghritha* (Ghee) has lipophilic action which helps to carry drugs to the target organs, it enters to its cellular level and delivers to mitochondria and nuclear membrane. It maintains the normal texture of skin (13). After *Snehapana* mild progress was observed in, *Daha* (burning sensation), *Matysyashakalopam* (scaling), *Rukshatvam* (dryness).

Abhyangam and Swedanam

Local *Abhyangam* at the site of lesion with 777 oil and *Atapa Swedanam* was done. When *Abhyangam* and *swedanam* are done, the *doshas* gets further liquified and moves to *Koshtha* (gut), which are then easily eliminated through *Shodana* methods (14).

Virechana

After *Abhyangam* and *swedanam*, *Virechanam* with *Trivrit lehyam* was done as it causes *suka Virecham*. *Virechana* karma helps to expel the *doshas* accumulated in *Koshtha*. It helps in removal of disease from its root cause, hence the chance of relapse of

disease is less. *Draksha Jala* was administered to the child which enhances the *virechana karma* as it is *Virechanopaga dravya* (15). No complications were observed during and after the procedure. After *Virechana* moderate progress was observed in itching, burning sensation, scaling and stiffness of interphalangeal joints.

Samsarjana Krama

After *Virechana*, digestive fire becomes weak due to excessive elimination of *doshas* and strength of the patient will be decreased. So, *Samsarjana Krama* helps to restore the digestive fire, strength of the patient (16).

Vasti

After completion of *Samsarjana krama*, *Yapana Vasti* was done. *Yapana Vasti* is free of complications and perform the functions of both *Anuvasana* and *Niruha vasti* (17). The main aim of administering *Yapana vasti* was because it is *srotoshodhaka* and has *rasayana* action at the same time, and also helps in tackling the vitiated *Vayu*, thereby establishing the homeostasis the *tridoshas*.

For the basis of improvement of lesions, PASI Score was taken into consideration. Before starting the treatment his PASI score was 10.8. After *Shodana* therapy the score was 1.2, (i.e 88%), which was marked improvement. Associated complaints like itching and burning sensation was also completely reduced.

Shamana therapy

Shamana therapy was given after completion of *Shodana* therapy as palliative therapy. Internal medicines administered after Pancha karma includes- *Gandaka rasayana*, *Arogya vardini vati*, *Aragwadha* syrup and *Mahatika ghritam* while, 777 oil was given as external application.

Maha tikta ghritam has *tikta rasa*, *ushna virya* helps in *Rasa* and *Raktaprasadana* by pacifying vitiated *Kapha & Pitta* doshas and has *rasayana* properties due to main ingredient *amalaki*. Therefore, *mahatika ghrita* is useful in chronic inflammatory conditions like *Eka kushta*.

Gandhak (sulfur) in *Ayurveda* has *Kushthaghna* property.

It's *Garavishahar* (anti-poisonous) and *Rasayana* (rejuvenation) properties help to cure and correct the causes of skin diseases. According to modern science, sulfur possesses an anti-inflammatory and anti-oxidant property which plays an important role in the treatment of autoimmune diseases such as psoriasis and psoriatic arthritis. It is known for its *Kushthaghna*, *Kledaghna*, *Ampachana*, *Raktaprasadana*, and *Rasayana* properties. In *Gandhak rasayana*, purified sulfur has been treated with different medicinal herbs to improve its pharmacological actions to many folds (18).

Arogyavardini Vati is the best formulation told by acharyas specially in the management of *kushta rogas*. The maximum ingredients are useful in skin diseases. The *vati* improves the function of *grahani* due to which

there is proper functioning of *Rasadhatwagni* and *Rakta dhatwagni* which is very important factor to cure the disease because *Eka kushta* is disease of *Raktavaha sroto dushti* (19).

777 oil as external application pacify *vata* and *kapha* doshas (main doshas in *Eka kushta*). It contains *kutaja* and acts as anti-inflammatory, anti-pruritic, anti-ulcerogenic, demulcent. It provides moisturizing effects and reduces dryness of skin and treats fissures and cracks. External application reduces multiplication of keratinocytes and attenuates all symptoms of psoriasis (20).

Though *Shamana* therapy is beneficial in decreasing the symptoms of *Eka kushta*, it takes longer time and also chances of relapse is more. *Shodana* therapy helps to remove the doshas from its root, prevents the relapse of disease, decreases the symptoms in less duration of time.

Conclusion

Eka Kushta which is a type of *Kshudra Kushta* can be correlated to Psoriasis. From the above case study, it can be concluded that *Ayurvedic* treatment modalities like repeated *Shodhana* and *Shamana* are useful in the management of *Eka kushta* and prevents the relapse of disease.

As it is a single case study, it is recommended to conduct a research study on more number of patients to prove the effectiveness of the treatment.

References

1. Sharma R.K and Bhagwan dash Caraka samhitha of Agnivesa, chowkhamba Sanskrit series office, Varanasi, 2014, volume -3, chikitsa sthana, Page no-319
2. Sharma R.K and Bhagwan dash Caraka samhitha of Agnivesa, chowkhamba Sanskrit series office, Varanasi, 2014, volume -3, chikitsa sthana, Page no--325
3. Joseph Loscalzo, Dennis L. Kasper, et al, Harrisons principles of internal medicine, 21st edition, New York, 2022 Page no--1533
4. Piyush Gupta, PG Text book of pediatrics, Volume -3, Part 8, chapter 48.14, Page no - 2908
5. Joseph Loscalzo, Dennis L. Kasper, et al, Harrisons principles of internal medicine, 21st edition, New York, 2022 , Page no--1533
6. Joseph Loscalzo, Dennis L. Kasper, et al, Harrisons principles of internal medicine, 21st edition, New York, 2022, Page no-1535
7. Robert M. Kliegman and Joseph st.Geme et al, Nelson textbook of pediatrics, 21st edition, volume -2, Part XXX the skin, chapter 676.1, Page no-13507
8. Sterry.W, Paus.W, burgdorf W, Sterry dermatology Ed 2006, Thieme, Newyork. Page no -267
9. https://dermnetnz.org/assets/placements/Graphics/DermNet_Psoriasis_Severity_Scoring_SMALL.jpg dated 25-07-2022 time 20:30 IST
10. Sharma R.K and Bhagwan dash Caraka samhitha of Agnivesa, chowkhamba Sanskrit series office,

Avinash Reddy M et.al., Ayurvedic management of Eka Kushta W.s.r to Psoriasis: A Case study

- Varanasi, 2014,volume -3, chikitsa sthana, Page no-- 327
11. Sharma R.K and Bhagwan dash Caraka samhitha of Agnivesa, chowkhamba Sanskrit series office, Varanasi, 2014,volume -3, chikitsa sthana, Page no-- 329
 12. Bramhashankar Mishra, Bhaishajya Ratnavali, Vol III edition 1st edition, New Delhi: Chaukhamba Sanskrit Bhavan; 2006. Page no--82
 13. Sharma HM. Butter oil (ghee) – Myths and facts. Indian J Clin Pract. 1990;1:31–2
 14. Vidyanath.R, Astanga Hrdaya of Vagbhata, sutrasthana, 1st edition, Chaukhamba surbharati prakashan oriental publishers, Chapter 17, Page no-- 276
 15. Sharma R.K and Bhagwan dash Caraka samhitha of Agnivesa, chowkhamba Sanskrit series office, Varanasi, 2014,volume -1, Sutra sthana, Page no-- 94
 16. Vidyanath R, Astanga Hrdaya of Vagbhata, sutrasthana, 1st edition, Chaukhamba surbharati prakashan oriental publishers, Chapter 18, Page no--283
 17. Sharma R.K and Bhagwan dash Caraka samhitha of Agnivesa, chowkhamba Sanskrit series office, Varanasi, 2014,volume-6, Siddhi sthana,chapter 12, Page no-- 429
 18. Guruprasad C.Nille, Anand kumar Chaudhary, Potential implications of Ayurveda in Psoriasis: A clinical case study. Journal of Ayurveda Integrative Medicine, 3 February 2021; 12(1); 172-177.
 19. Ashwini G. Gonare, Umesh N. Patil, Literary Review of Aarogyavardhini vati and its effect on KitibhaKushtha Ayurline: International Journal of Research In Indian Medicine 2019; 3(2): pages: 1-5
 20. <https://www.ayurtimes.com/category/siddha-medicine/propitiatory-siddha-medicine/> dated 25-07-2022 time 20:45 IST
