



A Case Report on Plaque Psoriasis- *Eka Kushtha*

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ABSTRACT-

Introduction- When evaluated in terms of its impact on health-related quality of life, skin diseases are just as significant as other serious medical problems. A large non-fatal burden is caused by skin disorders, which are the fourth most common cause of illness in humans. Skin conditions are frequently seen as a result of changed lifestyles, poor hygiene, emotional stress, overeating, lack of exercise, and nutritional deficiencies. In *Ayurveda*, all skin conditions fall under the general category of *Kushta*, which is further subdivided into *Mahakusta* and *Kshudra Kusta*. *Kshudra Kusta*, which mimics the symptoms and indicators of psoriasis, includes *Eka Kushtha*. Psoriasis is a chronic condition that is frequently seen in clinical settings nowadays, which explains its high prevalence. It needs long-term treatment because it is relapsing in nature. **AIM AND Objectives-** To assess the efficacy of Ayurvedic Treatment protocol in management of Plaque psoriasis- *Eka-Kushta*.

Material and Methods- Centre of study: This study was carried out in OPD of *Dravyaguna*, in Government Ayurveda college and hospital, Pratap Nagar, Jaipur, Rajasthan.

Observation and Result- The vitiation of *Vata*, *Pitta* and *Rakta Doshas*, which impact *Rasa*, *Rakta* and *Mamsa Dhatu (Dushya)*, is indicated by severe itching, dry scales, and burning sensation throughout the lower limbs during baseline visits. During the baseline visit, illness conditions were classified as *Saama* because of symptoms such constipation, sleep difficulty, and low appetite. Therefore, *Kushtha* and the *Pitta-Rakta-Vata* predominance of the *Saama* stage were taken into consideration when designing the treatment strategy.

Discussion And Conclusion- This case study illustrates how Ayurvedic treatments significantly reduced psoriatic lesions, with DLQI score improvement from 85%-before treatment to 13%-after treatment to 8%-in follow up, the PDI score improvement from 86%-before treatment to 55%-after treatment to 31%-in follow up, the PASI score improvement from 36-before treatment to 12-after treatment to 08-in follow up showing a noteworthy improvement.

KEY WORDS: Skin disease, Plaque Psoriasis, Psoriasis, *Kushta*, *Eka-kushta*, Dermatology life quality index, Psoriasis Disability Index, Psoriasis Area, Severity Index.

INTRODUCTION

Psoriasis is a hyper proliferative, autoimmune skin disorder which can cause pain and itching. This condition causes the development of immature epidermal cells by significantly reducing the usual one-month metamorphosis of epidermal cells from the basal cell layer to the skin's outer surface to just three to five days. These cells, which are immature nucleated epidermal cells found in the *stratum corneum*, shed quickly as

silvery scales. With secondary keratinocyte proliferation, lymphocytes cause and maintain it. Vascular and epidermal cells proliferate more quickly as a result of a T-cell-mediated immune response.^[1]

Well-marked, erythematous, finely defined papules and spherical plaques covered with silvery micaceous scales that are often extensor in distribution and vary in pruritus are the hallmarks of psoriasis. It is estimated that 2-4% of people in the western world suffer with psoriasis. Psoriasis rates vary with age, geography, and ethnicity; these variations are believed to be caused by a mix of hereditary and environmental factors.^[2] Although it can happen at any age, people often experience it for the first time between the ages of 15 and 25. About one-third of psoriasis sufferers say they received their diagnosis prior to turning 20.^[3]

Both sexes are equally affected by psoriasis.^[4] In India, psoriasis affects 0.44 to 2.8% of people, is twice as common in men as in women, and most patients are in their third or fourth decade when they first appear.^[5] Psoriasis affects a number of body parts, including the scalp, face, trunk, limbs, palms, and soles.^[6] The spread of skin damage and tissue biopsy are necessary for the diagnosis of psoriasis. Clinical patterns in psoriasis instances include plaque psoriasis (*Psoriasis vulgaris*), inverse psoriasis, guttate psoriasis, pustular psoriasis, and erythrodermic psoriasis.^[7]

Many medications, including topical treatments including corticosteroid application, keratolytics, anthralin and tars, and tazarotene analogues of vitamin-D3, are used in modern medicine to treat psoriasis. Cyclosporine, retinoids, and methotrexate are used in systemic treatment. The components of phototherapy include PDT, UVB, PUVA, and Bath PUVA. Notwithstanding their effectiveness, these therapies have significant side effects, including teratogenicity, pancytopenia, hepatotoxicity, lung toxicity, metabolic disruptions, and an elevated risk of cancer.^[8]

According to Ayurveda, all skin conditions fall under the general category of *Kushta*, which is further subdivided into *Mahakushta* and *Kshudrakushta*. One of the conditions covered under the *Kshudra Kushta* category is *Eka Kushtha*. Despite this, it is not a minor variety in terms of severity, incidence, or prognosis. The traditional Ayurvedic symptoms of *Eka kushtha* are similar to those of psoriasis. Remission, relapse, and seasonal variation—all of which are present in psoriasis—are the clinical features of *Eka kushtha* as described by *Acharya Kashyapa*.^[9]

AIM AND OBJECTIVES- To assess the efficacy of Ayurvedic Treatment protocol in management of Plaque psoriasis- *Eka-Kushta*.

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OBSERVATION AND RESULT

Vata, Pitta, Kapha, Twak, Rakta, Mamsa and *Lasika* are the seven components that must be in balance for each *Kusta* to appear.^[10] As a *Samanya Chikitsa*, *Acharya Charaka* asserts that in order to eradicate exacerbated *Doshas*, diseases involving *Bahu-dosh-avastha* must be treated using the *Shodhana* line of therapy.^[11] Since *Adhobhaga* had several lesions, *Virechana* was selected as *Shodhana's* treatment option.

Samprapti Ghatak^[12]

1. **Nidana:** *Rakta-dushti kar Ahara-vihara* (overindulgence in salty and sour foods like pickles and curd, as well as prolonged exposure to direct sunshine) and *Viruddh-ahara sevana* (constant consumption of milk and salty snacks).
2. **Doshas:** *Pitta (Bhrajaka), Kapha (Kledaka)* and *Vata (Vyana Vayu)*

3. **Dhatu:** Rakta (Sweda), Rasa (Toda, Vaivaranya) and Mamsa
4. **Upadhatu:** Tvacha
5. **Agni:** Mandya Jataragni
6. **Strotas:** Mamsa, Rakta and Rasa
7. **Sanga:** Sroto Dusti Prakara
8. **Sancharasthana:** Sarvasharira
9. **Udbhava Sthana:** Amashaya
10. **Adhistana:** Twak, Rakta, Mamsa, Lasika
11. **Vyakta Sthana:** Tvak
12. **Roga Marga:** Bahya
13. **Swabhava:** Chirakari
14. **Sadhyasadyata:** Krichrasadya

Prodromal features of Psoriasis [Purvarupa of Eka kushtha]^[13]

1. Less sweating (Aswedan).
2. Increased sweating (Atiswedan)
3. Skin discolouration (Twakvaivaranya)
4. Itching (Kandu)
5. Pricking (Nistoda)
6. Numbness (Suptata)
7. Hortipilation (Lomaharsha)
8. Fatigue (Klama) and more.

Clinical features of Psoriasis [Rupa of Eka kushtha]^[14]

1. Asweda, or less perspiration;
2. Mahavastu, or longer skin lesions;
3. Matsyashakalopama, or skin scaling like fish scales;
4. Aruna varna, or pink discolouration;
5. Krishna varna, or blackening of the portion; and so on.

Upashaya^[15]

1. Abhyanga (improvement on wet cold sponging and oil application)
2. Bahya Shita Sparsha
3. Ayurveda mentions Shodhana and Shamana Chikitsa for Kushta control-Based on Panchkarma therapy, Shodhana Chikitsa incorporates shamanic treatment with oral medication and local application.

Anupashaya^[15]

1. Ushna sparsha, which is exacerbated when working in a hot and muggy environment.

Case presentation/Patient information

A 28-year-old woman housewife, after receiving a diagnosis of plaque psoriasis from a consultant dermatologist, underwent three years of allopathic treatment with frequent checkups. In the most recent treatment, symptomatic alleviation was achieved through topical and systemic immunosuppressive medication. However, the patient stopped allopathic treatment and sought Ayurvedic treatment due to a recurrent pattern brought on by the unidentified aggravating variables.

Clinical findings

The patient's back was covered with erythematous plaques when they first arrived. Large silvery scales covered the surface of the affected skin, which had varying shades of red. All over the patient's body, there

was burning and itching.

Family History- No history of skin disorder.

Personal history

- Diet- Mixed (takes non veg food thrice a week)
- Appetite- decreased
- Bowel- irregular
- Micturition- regular (5-6times /day)
- Sleep- disturbed due to itching
- Addiction- no addiction

General examination

- BP: 130/90 mmHg
- Pulse: 78 bpm
- Respiratory rate: 18/min
- Temperature: 98°F
- Pallor: Absent
- Icterus: Absent
- Cyanosis: Absent
- Clubbing: Absent
- Lymph node: not palpable
- Oedema: Absent

Ashtasthana Pariksha

- *Nadi- Kapha vata*
- *Mala- Vibhanda*
- *Mutra- Prakruta*
- *Jihva- Aipta*
- *Drik- Prakruta*
- *Shabdha- Prakruta*
- *Sparsha- Khara sparsha*
- *Aakriti- Madhyama*

Dashavidha Pariksha

- *Prakriti- Pitta vata*
- *Vikriti- Kapha vata*
- *Satva- Madhyama*
- *Sathmya- Madura, Katu*
- *Ahara Shakti- Madhyama*
- *Vyayama Shakti- Madhyama*
- *Sara- Asthi*
- *Samhanana- Madhyama*
- *Agni Shakthi- Madyama*
- *Vaya- Madhyama*

Systemic examination

In systemic examination, respiratory and cardiovascular system found normal. The patient was restless due to itching and burning sensation over psoriatic lesions.

Examination of Skin

A. Inspection-

- Location- lower back of body
- Shape- circular lesion Reddish erythematous graze
- Color- blackish white
- Discharge- Absent

B. Palpation-

- Moisture- Dryness
- Temperature- Warmth to touch
- Texture- Rough and scaly

Diagnostic assessment

1. Candle grease test- positive
2. Auspitz sign- negative
3. Koebner phenomenon- positive
4. Distribution of lesion- symmetrical

Criterion of assessment was based on the scoring of-

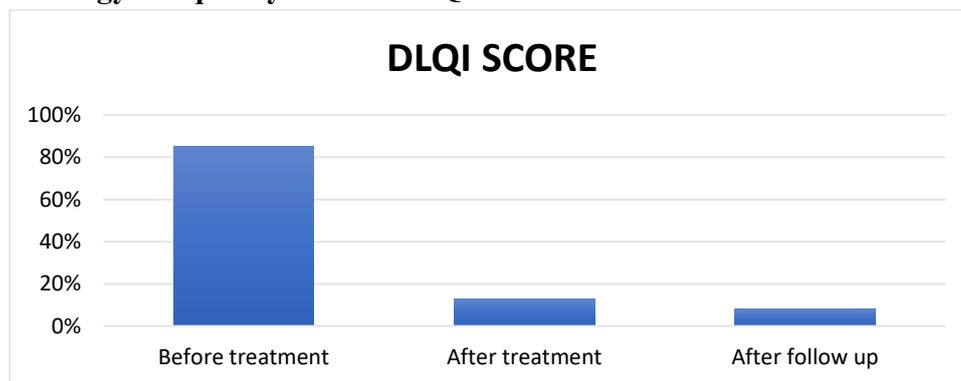
1. Dermatology life quality index (DLQI)
2. Psoriasis disability index (PDI)
3. PASI score

Dermatology life quality index (DLQI)- The DLQI is a questionnaire about past experiences and emotions. Work, education, leisure, everyday activities, symptoms, emotions, interpersonal interactions, and the effects of treatment are all measured. It is determined by adding together all of the questions' scores, with a maximum of 30 and a minimum of 0. The worse the quality of life, the higher the score. Another way to express the DLQI is as a percentage of the highest possible score of 30.

Table-01: Dermatology life quality index - DLQI

Before treatment	After treatment	After follow up
85%	13%	08 %

Figure-01: Dermatology life quality index - DLQI

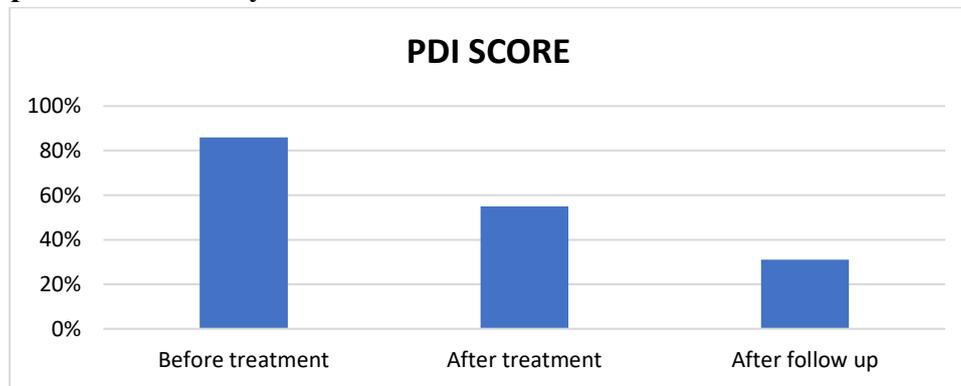


Psoriasis disability index (PDI)- The Psoriasis Disability Index is a questionnaire that covers 15 topics, such as everyday activities, connections with others, vacation, employment, and the results of actual treatment. Many clinical studies have made advantage of this.

Table-02: The psoriasis disability index-PDI

Before treatment	After treatment	After follow up
86 %	55 %	31%

Figure-02: The psoriasis disability index-PDI



PASI score- The Psoriasis Area Severity Index (PASI) has been the gold standard for evaluating severe psoriasis up to this point. PASI creates a single score between 0 (no disease) and 72 (maximal disease) by combining the evaluation of the lesions' severity and the affected area. Weighted by the area of involvement, the PASI is a measurement of the average lesions' redness, thickness, and scaling (all of which are evaluated on a 0–4 scale).

Table-03: Psoriasis area severity index (PASI)- Before treatment

Before treatment	Head and neck	Arms	Trunk	Legs
Skin area involved score	<10%	30-49%	70-80%	30-49%
Redness	2	3	3	2
Thickening	1	4	4	4
Scaling	1	4	4	4
PASI score: 36				

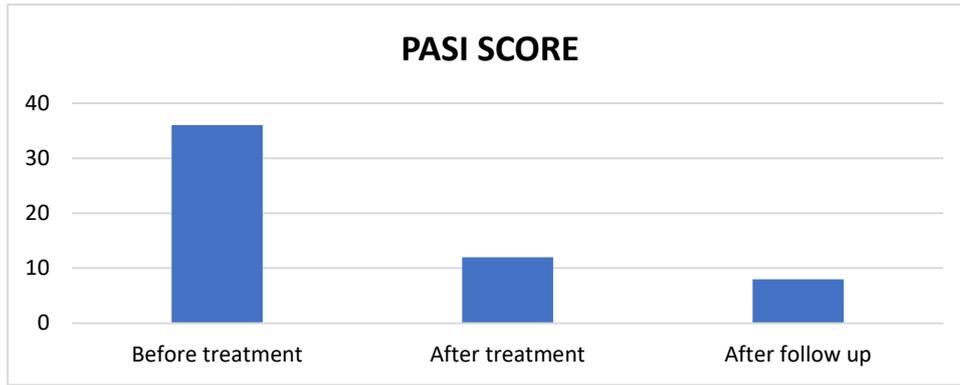
Table-04: Psoriasis area severity index (PASI)- After treatment

Before treatment	Head and neck	Arms	Trunk	Legs
Skin area involved score	<10%	10-29%	30-49%	10-29%
Redness	1	1	2	1
Thickening	0	1	1	1
Scaling	1	1	1	1
PASI score: 12				

Table-05: Psoriasis area severity index (PASI)- Follow Up

During follow up	Head and neck	Arms	Trunk	Legs
Skin area involved score	0%	10-29%	30-49%	10-29%
Redness	0	1	2	1
Thickening	0	0	1	1
Scaling	0	0	1	1
PASI score: 8.0				

Figure-03: Psoriasis area severity index (PASI)



Therapeutic interventions

The Ayurvedic treatment included a suitable diet and Ayurvedic formulations, both herbal and herbo-mineral, applied topically and taken orally. Treatment was scheduled following the identification of the stages of vitiated *Doshas*. The vitiation of *Vata*, *Pitta* and *Rakta Doshas*, which impact *Rasa*, *Rakta* and *Mamsa Dhatu* (*Dushya*), is indicated by severe itching, dry scales, and burning sensation throughout the lower limbs during baseline visits. During the baseline visit, illness conditions were classified as *Saama* because of symptoms such as constipation, sleep difficulty, and low appetite. Therefore, *Kushtha* and the *Pitta-Rakta-Vata* predominance of the *Saama* stage were taken into consideration when designing the treatment strategy.

Table-06: The details of the therapeutic interventions prescribed

S. No.	Interventions	Routes	Doses	Adjuvants	Durati on
1.	<i>Khadirarishta</i> (herbal decoction)	Oral	20 mL of <i>Arishta</i> empty stomach once in the morning	20 mL of lukewarm water	3 months
2.	<i>Haridrakhanda</i>	Oral	5 gm two times a day with milk	200 mL of lukewarm milk	3 months
3.	<ul style="list-style-type: none"> • <i>Avipatkar churna</i> 05gm • <i>Giloya sattva</i> 250 mg • <i>Arogyavardhini Vati</i> 250 mg (two tablets) • <i>Gandhaka Rasayana</i> 250 mg (two tablets) • <i>Godanti bhasma</i> 500mg 	Oral	two times a day after meal	20 mL of lukewarm water	3 months
4.	<i>Kumaryasava</i> (Herbal decoction)	Oral	20 mL of <i>Asava</i> two times a day after meal	20 mL of lukewarm water	3 months
5.	<i>Triphala Churna</i>	Oral	5 gm at bedtime after the meal	Luke warm	3 months

				water	
6.	<i>Tankan bhasma</i>	External application	5gm in 20 ml water cleaning solution two times a day before lepa application	Luke war m water	3 months
7.	<i>Exoskin ointment</i>	External application	Pack application two times a day after cleaning	For 30 minutes	3 months
8.	<i>Mahamarichyadi oil</i>	External application	Two times a day	-	3 months
7.	Conducive dietary plan- Restricted use of salt, sour food items, curd, old buttermilk, and sweet products, meat and fish, overeating, etc.	-	-	-	3 months

Timeline

In the present case, all the treatment was continued for 3 months. *Pathyahara* (A strict dietary plan) continued for the next 3 months after the end of active treatment to check the recurrence of psoriasis.

Follow-up and Outcomes

Every follow-up revealed the patient's progress. There were indications of a consistent recovery for the psoriatic lesions and all associated symptoms, including intense burning and itching. A certain amount of relief was observed based on the PASI features. The patients stated that liver damage symptoms, including constipation and appetite loss, were beginning to get better on the second visit. During the course of treatment, no negative side effects were observed. There was no symptom recurrence throughout the follow-up.

Table-07: The follow-up details with timeline and periodic clinical outcome

Timelines	Clinical events and interventions	Clinical outcome
Since 3 years	Acute itching and burning sensation over the back and using the self-prepared paste of camphor with coconut oil and modern medicines.	Symptomatic relief from itching but recurs frequently
Baseline visit-01 02-02-2024	Visit the outpatient department of GAC, Jaipur. The detailed history, clinical assessment, examination, and confirmation of diagnosis were done. Ayurveda treatment started as mentioned.	Dry erythematous plaques with large silvery scales. Auspitz Sign was found positive. Confirmation of clinical diagnosis as plaque psoriasis. PASI score = 36.

Visit-02 After 15- days	Assessed drug compliance. Physical and clinical assessment. Assessment of the PASI score. Interventions continued as mentioned	Significant relief from itching and burning sensation. Significant relief from loss of appetite and constipation. PASI score = 32.
Visit-03 After 15- days	Assessed drug compliance. Physical and clinical assessment. Interventions continued as mentioned	Significant improvement was found in redness, thickness, and scaling.
Visit-04 After 15- days	Assessed drug compliance. Physical and clinical assessment. Assessment of the PASI score. Interventions continued as mentioned	Auspitz Sign found negative.
Visit-05 After 15- days	Assessed drug compliance. Physical and clinical assessment. Interventions continued as mentioned	Significant improvement was found in redness, thickness, and scaling. Relieved from the burning sensation.
Visit-06 After 30- days	Assessed drug compliance. Physical and clinical assessment. Assessment of the SPASI score.	Significant improvement was found in redness, thickness, and scaling. Relieved from the burning sensation. PASI score = 12
Follow-up After 30- days	Only dietary regimen continued	Complete remission from symptoms. No redness, thickness and scaling of skin.
Follow-up After 60- days	Only dietary regimen continued	No recurrence was found scaling were reported by the patient. SPASI score = 08

Figure-04: Photographs of affected areas before and after the treatment



DISCUSSION

The most prevalent variety of psoriasis is plaque psoriasis, which is characterized by elevated patches of reddish skin and silvery-white scale. Environmental and genetic variables play a major role in psoriasis, an autoimmune disease. Furthermore, the pathophysiology of psoriasis involves cytokines, keratinocytes, and the inflammatory cascade.

The *Doshas* in this instance were *pitta, kapha and rakta*, whereas the *Dushyas* were *Rasadhatu, Raktadhatu and Mamsadhatu*. The circulation of vitiated *Doshas* and their *Sthanasamshraya* at *Tvaka*, along with the clinical manifestation of *Vyadhi lakshnanas*, caused *Dosha-dushya samurechana*. For *Samprapti bhedana*, the treatment regimen was used, with a preference for *Pitta-kaphahara, Jirnajwarahara, Vataraktahara, and Rasayana* in addition to *Kushthaghna aushadhiyogas*.

This treatment regimen included *Agnideepana, Amapachana, Pitta Shamaka, Raktaprasadana, Vatanulomana* and drugs that had an impact on the liver. *Amapachana, Agnideepana* and *Vatanulomana* are all treated with *Triphala Churna*. The hepatic support was given by using *Kumaryasava, avipattikar churn, giloy sattva* and *Arogyavardhini Vati. Khadirarishta, haridra khanda, godanti bhasma* and *Gandhaka Rasayana* were used for their *Pitta Shamaka* and *Rakta Prasadana* characteristics. To alleviate itching, it was advised to externally clean with tankan bhasma and water to clean affected area, than apply exoskin ointment for nearly 30 minutes, than applying *mahamarichyadi* oil to the afflicted area of the skin.

Dietary factors have a substantial impact on the aetiology of psoriasis. Unhealthy eating habits included eating too many items that were salty, sour, sweet, and high in carbohydrates, as well as aged butter, a diet heavy in saturated fats, yoghurt, and spicy foods.

Additionally, they frequently paired dairy products with fish and salty snacks. In addition to a supportive diet (*Pathya*), ayurvedic drugs have been suggested as a mitigating measure. Self-used topical medications were stopped.

CONCLUSION

Plaque psoriasis is still difficult to cure, but it can be effectively treated with a customized Ayurvedic treatment plan that includes dietary and lifestyle changes. This case study illustrates how Ayurvedic treatments significantly reduced psoriatic lesions, with DLQI score improvement from 85%-before treatment to 13%-after treatment to 8%-in follow up, the PDI score improvement from 86%-before treatment to 55%-after treatment to 31%-in follow up, the PASI score improvement from 36-before treatment to 12-after treatment to 08-in follow up showing a noteworthy improvement.

DECLARATION OF PATIENT CONSENT

The patient acknowledged the use of his clinical information, photos and other pertinent medical data and provided written informed consent for this case report to be published. With the guarantee that all identifying information would be kept private and the patient's anonymity maintained in compliance with ethical guidelines for medical publications, the consent allowed the inclusion of these items in the report.

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