



## Case Study

### AYURVEDIC MANAGEMENT OF PLAQUE PSORIASIS- A CASE STUDY

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#### ABSTRACT

Psoriasis is a chronic, multisystem inflammatory disease with predominantly skin and joint involvement. In Ayurveda all skin diseases are described under the umbrella of *Kushtha*. Ayurvedic system of medicine is giving good results in management of Psoriasis. Repeated *Samshodhana* (purificatory therapies) along with *Samshamana* (palliative therapies) is the main line of treatment if skin diseases in Ayurveda. Three assessments were taken before and after treatment on scoring of Dermatology Life Quality Index (DLQI), Psoriasis Disability Index (PDI) and PASI score. Score of the patient was 63.3% before treatment and 13.3% after treatment and 3.3% after follow up on Dermatology Life Quality Index (DLQI), 44.4% before treatment and 15.5% after treatment and 5.3% after follow up on Psoriasis Disability Index (PDI) and 24.5% before treatment, 5.1% after treatment and 1.2% after follow up in PASI (Psoriasis Area and Severity Index). This case study wants to substantiate the effectiveness of Ayurvedic treatment in the management of Plaque psoriasis.

**KEYWORDS:** Plaque Psoriasis, Psoriasis, *Kushta*, Skin disease, *Eka kushta*, *Sidhma*, Dermatology life quality index, Psoriasis Disability Index, Psoriasis Area, Severity Index.

#### INTRODUCTION

Psoriasis is a common dermatologic disease, affecting up to 1% of the World's population<sup>[1]</sup>. The word Psoriasis is derived from Greek word 'Psora' means 'itch' and 'sis' meaning 'acting condition'. Psoriasis is a chronic, multisystem inflammatory disease with predominantly skin and joint involvement. Beyond the physical dimensions of disease, psoriasis has an extensive emotional and psychosocial effect on patients, affecting social functioning and interpersonal relationships<sup>[2]</sup>. It is a multisystem inflammatory disease with predominantly skin and joint involvement. It has a bimodal age of onset (16 to 22 and 57 to 60 years)<sup>[3]</sup> and affects both sexes equally<sup>[4]</sup>. Pathogenesis is multifactorial, involving dysregulated inflammation and genetic associations<sup>[5]</sup>.

As a disease of systemic inflammation, psoriasis is associated with multiple co morbidities, including cardiovascular disease and malignancy. Depending on the severity of disease, appropriate treatment can be initiated. The diagnosis is primarily clinical and a skin biopsy is seldom required. There are different clinical types of psoriasis, the most common of which is chronic plaque psoriasis, affecting 80% to 90% of patients with psoriasis. The hallmark of classic plaque psoriasis is well-demarcated, symmetric, and erythematous plaques

with overlying silvery scale. Plaques are typically located on the scalp, trunk, buttocks, and extremities but can occur anywhere on the body.

Patients might demonstrate nail involvement, which can present without concomitant plaques. Active lesions might be itchy or painful. Psoriasis can also present as an isomorphic response, where new lesions develop on previously normal skin that has sustained trauma or injury (Koebner's phenomenon). For mild to moderate disease, first-line treatment in conventional medicine involves topical therapies including corticosteroids, vitamin D3 analogues, and combination products<sup>[6]</sup>. There is no satisfactory treatment available for Psoriasis in conventional medical system. However, Ayurvedic system of medicine is giving good results in management of Psoriasis.

In Ayurveda all skin diseases are described under the umbrella of *Kushtha*. There are several types of Psoriasis which can be related to certain diseases described in Samhitas. While the description of *Kushtha* is present since Vedic period, *Ekakushtha* is described in *Garuda Purana*<sup>[7]</sup> and almost all Ayurvedic classics after that period i.e. *Brihatrayi*, *Laghutrayi* and all texts afterwards. *Ekakushtha* is mentioned in all Ayurvedic classics under *Kshudrakushtha* and has predominance of *Vata* and

*Kapha dosha*<sup>[8]</sup>. The causative factor of *Ekakushtha* is same as *Kushtha*. Dietary factors like *Viruddha aahara* (incompatible foods), excessive consumption of *Drava*, *Snigdha*, *Guru aahar* (excess use of foods which are liquid, unctuous and difficult to digest), *Vega dharana* (suppression of urges) especially vomiting are the major aetiologies as per Ayurveda. Indulgence in sinful act is also described as a causative factor for the disease<sup>[9]</sup>.

Acharya Charaka has mentioned the symptoms of *Ekakushtha* as *Aswedanam* (without sweating), *Mahavastu* (big), and *Matsyashakalopamam* (like scales of fish)<sup>[10]</sup> and Acharya Sushruta described its symptoms as *Krishna- aruna varnata* (blackish red lesions)<sup>[11]</sup>. Another type of *Kushta* called *Sidhma*, characterized by white/coppery thin lesions with predominant scaling is also mentioned in Ayurveda<sup>[12]</sup>. These etiological factors lead to vitiation of *Tridosha* especially *Vata* and *Kapha*. These *Doshas* through *Tiryakvahini siras* proceed to *Bahya rogamarga* i.e. *Twacha*, *Rakta*, *Mamsa*, and *Lasika* and cause disease<sup>[13]</sup>. Repeated *Samshodhana* (purificatory therapies) along with *Samshamana* (palliative therapies) is the main line of treatment of skin diseases in Ayurveda<sup>[14]</sup>. *Shodhana* removes *Vruddha* (vitiating) *Doshas* from the body. *Shamana* stabilizes *Doshas* in our body. Both *Antah parimarjan* and *Bahi parimarjan* therapies (internal and external cleansing therapies) have been indicated in *Kushtha roga*.

This case study wants to substantiate the effectiveness of Ayurvedic treatment in the management of Plaque psoriasis. Three assessments were taken before and after treatment on scoring of Dermatology Life Quality Index (DLQI), Psoriasis Disability Index (PDI) and PASI score. Score of the patient was 63.3% before treatment and 13.3% after treatment and 3.3% after follow up on Dermatology Life Quality Index (DLQI), 44.4% before treatment and 15.5% after treatment and 5.3% after follow up on Psoriasis Disability Index (PDI) and 24.5% before treatment, 5.1% after treatment and 1.2% after follow up in PASI. Written informed consent was obtained from the patient for the publication of this case report.

### CASE Description

A male patient named Vishnu.S- 25yrs/male (driver), residing at Shankhumukham Thiruvananthapuram, India came to Regional Ayurveda Research Institute for Lifestyle Related Disorders (RARILSD), Poojappura, Thiruvananthapuram under CCRAS, Ministry of AYUSH on 12.2.2019 with complaints of small red round patches all over the body, was admitted in IPD on 18.02.2019. In 2015, he noticed small red round

patches over the scalp associated with itching. He consulted an Allopathic physician and took medicines. Within 6 months, lesions spread all over the body along with scaling and itching. Patient took treatment, although he got mild relief in first stage, symptoms aggravated later. In December, the condition was worsened in cold climate.

Patient has no history of allergy to any drug or food item. No past history of any major medical illness found. His mother's brother had similar problem. All vital signs were normal. Patient had smoking addiction earlier. Appetite, sleep, micturition and bowel habits were normal. Patient followed mixed diet earlier, but was advised to follow vegetarian diet during treatment.

### Diagnosis and assessment

On the basis of clinical history and examination the condition was diagnosed. Signs and symptoms like well-circumscribed erythematous papules/plaques covered with dry, brittle, silvery grayish, white micaceous scales, Auspitz sign, Koebner phenomenon, Candle grease sign, etc. were present.

Criterion of assessment was based on the scoring of Dermatology life quality index (DLQI), Psoriasis Disability Index (PDI) and PASI score.

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

The DLQI is a questionnaire relating to the previous activities and feelings. Work, school, leisure, daily activities as well as the symptoms and feelings are measured as well as personal relationships and the impact of treatment. It is calculated by summing the score of each question, resulting in a maximum of 30 and a minimum of 0. The higher the score, the more the Quality of Life is impaired. The DLQI can also be expressed as a percentage of the maximum possible score of 30.

**Table 1: Dermatology life quality index -DLQI**

Before treatment	After treatment	After follow up
63.3%	13.3%	3.3 %

The psoriasis disability index

This is a questionnaire addressing 15 aspects including daily activities, personal relationships, vacation, work as well as the effects of actual treatment. This has been used in a number of clinical studies.

**Table 2: The psoriasis disability index-PDI**

Before treatment	After treatment	After follow up
44.4 %	15.5 %	5.3%

**PASI Score:** 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 and the area affected into a single score in the range 0 (no disease)

to 72 (maximal disease). The PASI is a measure of the average redness, thickness and scaling of the lesions (each graded on a 0-4 scale), weighted by the area of involvement.

**Table 3: PASI score- Before treatment**

	Head and neck	Arms	Trunk	Legs
Skin area involved score	<10%	10-29%	30-49%	50-69%
Redness	1	1	1	3
Thickening	1	1	2	4
Scaling	2	3	2	4
<b>PASI score: 24.5</b>				

**Table 4: PASI score- During discharge (after 1.5 months)**

	Head and neck	Arms	Trunk	Legs
Skin area involved score	0	0	<10%	30-49%
Redness	0	0	0	10-29%
Thickening	0	0	<10%	10-29%
Scaling	0	0	0	0
<b>PASI score= 5.1</b>				

**Table 5: PASI score - After follow up (after 6 months)**

	Head and neck	Arms	Trunk	Legs
Skin area involved score	0	<10%	0	<10%
Redness	0	<10%	0	<10%
Thickening	0	<10%	0	<10%
Scaling	0	0	0	0
<b>PASI score= 1.2</b>				

**Table 6: Management with Internal Medicines**

Duration	Medicine	Dose	Frequency
24.2.2019-30.3.2019 (except days of Snehapana, Vaman, Virechan)	<i>Guduchyadi kwatha</i>	60ml	Twice a day before food
	Tab. <i>Kaishoraguggulu</i>	2	Twice a day with <i>Kwatha</i>
	<i>Khadirarishta</i>	20ml	Twice a day after food
	Tab. <i>Vilwadi</i>	1	With <i>Arishta</i>
24.2.2019-1.3.2019	<i>Manibhadra gulam</i>	1 tablespoon	With hot water at night time
2.3.2019-30.3.2019	<i>Aragwadhamahatiktaka ghrita</i>	1 tablespoon	At bed time

**Table 7: Management with Panchakarma Procedures**

Duration	Treatment
19.2.2019- 23.2.2019	<i>Snehapana</i> with <i>Mahatiktaka ghrita</i> (internal administration of medicated ghee in gradually increasing dose)
24.2.2019- 26.2.2019	<i>Nimbapatra potalasweda</i> (a type of fomentation) in <i>Dantapala kera</i>
27.2.2019	<i>Virechana</i> (purgation) with <i>Nimbamrita eranda taila</i> -30 ml
28.2.2019- 6.3.2019	<i>Takradhara</i> -whole body
7.3.2019	<i>Abhyanga</i> (oil massage) with <i>Dantapala kera</i> and bathing with hot water
8.3.2019	<i>Vamana</i> (Emesis)

9.3.2019-10.3.2019	<i>Samsarjanakrama</i> (for increasing the digestive power after <i>Vamana</i> therapy)
11.3.2019-12.3.2019	<i>Rookshana</i> with <i>Vaiswanara choorna</i> -2 teaspoon with hot water twice a day before food
13.3.2019-15.3.2019	<i>Snehapana</i> with <i>Brahmi ghrita</i>
16.3.2019	<i>Abhyanga</i> (oil massage) with <i>Dantapala kera</i> and bathing with hot water
17.3.2019-23.3.2019	<i>Nasya</i> (nasal instillation of medicine)- <i>Anuthaila</i>
17.3.2019-23.3.2019	<i>Takradhara</i> (pouring medicated butter milk) -whole body
24.3.2019-25.3.2019, 28.3.2019, 30.3.2019	<i>Jalookavacharana</i> (leeching)- both legs, forehead, trunk
24.3.2019-30.3.2019	<i>Panchatiktaka ksheera vasti</i> (a type of enema)

## DISCUSSION

Psoriasis is a chronic, multisystem inflammatory disease with predominantly skin and joint involvement. Beyond the physical dimensions of disease, psoriasis has an extensive emotional and psychosocial effect on patients, affecting social functioning and interpersonal relationships. In Ayurveda, all skin diseases are described under the umbrella of *Kushtha*. Symptoms of *Ekakushta*, a type of *Kushtha* like *Aswedanam*, *Mahavastu*, *Matsyashakalopamam*, *Krishna- aruna varnata* are the classical features of Plaque psoriasis. Another type of *Kushtha* called *Sidhma*, characterized by white/coppery thin lesions with predominant scaling is also mentioned in classical texts like *Madhavanidan*. The etiological factor leads to vitiation of *Tridosha* especially *Vata* and *Kapha*. These *Doshas* through *Tiryakvahini siras* proceed to *Bahya rogamarga* i.e. *Twacha*, *Rakta*, *Mamsa*, and *Lasika* and cause the symptoms of disease. Repeated *Samshodhana* along with *Samshamana* is the main line of treatment.

*Shodhana* is very important in the management of *Kushtha*, it's told that doing external applications without cleansing the body internally by *Shodhana* procedures will lead to the exacerbation of skin disease. As preparatory procedures, *Snehapana* with *Mahatiktaka ghrita* (indicated in all types of *kushta*) for 5 days and *Nimba patrapotala sweda* (found effective in plaque psoriasis) for 3 days were done. *Virechana* was done with *Nimba amriteranda taila*, which is *Tridoshahara*. It was followed by *Takradhara* for 7 days and *Vamana* for one day. *Takradhara* is a traditional Ayurvedic procedure useful in treating psychosomatic disorders, psoriasis, hypertension, lack of sleep etc. *Takra* contains all the five *Rasa* (tastes) except *Lavana* (salty). It has *Usnavirya* (hot potency) and *Amlavipaka* (sour transformation of taste) and also has *Vata kapha Nashaka* (alleviates *Vata* and *Kapha dosha*) properties. *Vamana* is also found highly effective in the management of skin diseases.

After *Samsarjanakrama*, *Snehapana* with *Brahmi ghrita* for 3 days and *Abhyanga* with *Dantapala kera taila* and hot water bath for one day as *Swedan* were done. *Brahmi ghrita* is indicated in both skin diseases and psycho somatic diseases. The patient got loose stools with *Brahmi ghrita*-200ml on third day. So it was stopped on third day. After that, *Nasya* with *Anu thaila* (which is *Tridoshahara*) and *Takradhara* were done for 7 days. It was followed by *Panchatiktaka ksheera vasti* for 7 days. In between *Jalukavacharana* was done on sites where lesions were predominant like legs, temporal area of forehead and back of trunk. Both are indicated in *Pittaja* diseases. Thus all the 5 *Shodhana* procedures were done in this case.

As internal medicines, *Guduchyadi kwatha*, *Kaishoraguggulu*, *Khadirarishta*, *Vilwadi vati*, *Manibhadragulam*, *Aragwadha Mahatiktakam Ghrita* were prescribed. All medicines are *Raktadushtihara* (cleansing *Rakta dhatu*), *Kushtahara* (alleviates skin diseases), *Srotovishodhana* (cleansing channels of body), *Pittadoshahara* (alleviating *Pitta dosha*). *Manibhadra Gulam* is *Anulomana* also (laxative). *Guduchyadi kwatha* is *Agnikrit* (increases digestive fire of body), *Agnimandya* is said to be the root cause of all diseases in Ayurveda.

The patient was discharged after 1.5 months of in-patient treatment. *Mahatiktakam kwatha*, *Arogyavardhini* tablet, *Saribadyasava*, *Dushivishari* tablet, *Nimbamriterandam* capsule, *Brihat dantapala kera* were given as discharge medicines, which are *Raktadushtihara*, *Pittadoshahara*, *Anulomana*, *Vishahara* in nature. During follow up after 6 months of treatment, patient reported good relief in all complaints. Three assessments were taken before and after treatment on scoring of Dermatology Life Quality Index (DLQI), Psoriasis Disability Index (PDI) and PASI score. Score of the patient was 63.3% before treatment and 13.3% after treatment and 3.3% after follow up on Dermatology life quality index (DLQI), 44.4% before treatment and 15.5%

after treatment and 5.3% after follow up on Psoriasis Disability Index (PDI) and 24.5% before treatment, 5.1% after treatment and 1.2% after follow up in PASI.

The present case report substantiates effectiveness of classical Ayurvedic management in Plaque Psoriasis. It is better to advise to take periodic

*Panchakarma* interventions to prevent further exacerbation of the condition and decreasing the frequency of recurrence. It also prevents the progress of the condition into complications like Psoriatic arthritis.



Fig. 1. Patient before treatment



Fig. 2. Patient after treatment



Fig. 3. Patient after follow up

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