

## CASE REPORT



## Efficacy of Shodhana and Sarvang Takradhara Therapy in the Management of Psoriasis: A Case Study

### OPEN ACCESS

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### Abstract

Psoriasis is a non-infectious chronic inflammatory disease of the skin characterized by well-defined erythematous plaques with a silvery scale which have a predilection for extensor surface and scalp and by chronic fluctuating course. The disease not only affects the patient physically but also disturbs the mental and social health of the patient, as the appearance of the patient may be embarrassing. In Ayurveda, all skin diseases are described under the umbrella of Kushtha. The exact aetiology of Psoriasis is not known but many precipitating factors like genetic, dietary, immunological and psychological has been found. It is spreading fast because of unsuitable lifestyle changes such as dietary patterns, busy schedules and stress. This case study intends to evaluate the efficacy of *pachana*, *Shodhana*, *Shamana* medicines and *Sarvang Takradhara* therapy in the management of *Sidhmakushta* (psoriasis). A 48-year male presenting with recurring psoriasis was diagnosed as *Sidhmakushta* as per Ayurveda. *Deepana-Pachana*, *Snehapana*, *Virechana*, *Samana* therapy was given to the patient. During follow up period no recurrence was observed. Ayurveda *pachana*, *shodhana* & *shaman* therapy resulted in effective management of Psoriasis.

**Keywords:** Sidhmakushta; Pachana; Shodhana; Shamana; Psoriasis

### Introduction

In Ayurveda, all skin diseases have been described under the umbrella of Kushtha<sup>(1)</sup>. Psoriasis is a non-infectious, chronic, inflammatory skin disease, characterized by well-defined, itchy, deep pink to reddish, raised patches covered with silvery scales, most commonly appears on the knees, elbows, trunk and scalp<sup>(2)</sup>. *Sidhmakushta* (Psoriasis) is one

among the *kshudrakushta* described in Ayurvedic texts<sup>(3)</sup>. In *Ashtangahrudaya*, Acharya *Vagbhata* explains *dosha* predominance of *Sidhmakushta* as *Vata-Kaphaja*<sup>(4)</sup>. The signs and symptoms comprise lesions having a - smooth and reddish inner surface (*Anthahsnigdham*), the dry outer surface (*rooksham bahir*), leaving whitish scales/powder on scratching (*rajo ghrushtam vimuchyati*).

It can be clinically correlated with symptoms of Psoriasis. Hence it has been taken as an analogue to Psoriasis in the present case study. Skin diseases are described under kushta roga which primarily cause discolouration of the skin (*vaivarnya of twak*) and in due course of time, they make the body extremely unpleasant. *Sidhmakushta* includes an unpredictable wide range of symptoms, apart from *Sidhmakushta*, *Ekakushta* and *Kidibhakushta* have similar manifestations. This disease is included in *Ashtamahagadas* in Ayurvedic classics as its difficulty in management - the symptoms subside by treatment but get relapsed after a while if the favourable conditions develop.

According to W.H.O. the worldwide prevalence of Psoriasis is 0.09% - 11.43%<sup>(5)</sup>. In India prevalence of Psoriasis varies from 0.44 to 2.88%<sup>(6)</sup>. Psoriasis consists of itchy, deep pink to reddish, well-demarcated, indurated plaques with silvery-micaceous scaling present particularly over extensor surface and scalp<sup>(7)</sup>. Psoriasis is a common chronic, immune-mediated, inflammatory, proliferative, non-contagious disease of the skin affecting people who are genetically predisposed with the environment playing a critical role in pathogenesis<sup>(8)</sup>. Psoriasis is a multi-factorial disease. Triggering factors are infection, drug and trauma<sup>(9)</sup>. There is no satisfactory treatment available for Psoriasis. *Acharya Charaka* had mentioned that all *Kushthas* are *Tridoshaj* in nature<sup>(10)</sup>. Hence for the cure of *Kushta* roga a judicious blend of *Shodhana* (purificatory therapies) *Samana* (alleviation therapies) and *Bahiparmarjnakriyas* (external therapies) are needed with proper *pathyaahara viharas*. *Rasayana sevana* need to be applied to prevent its relapse. This helps to bring the remaining imbalanced *doshas* back to normalcy and thus to restore the body tissues healthy in this case study.

## Case report

A 48-year-old male patient from Ukraine was admitted to Rajah Beach Hospital, Akalad, Thrissur, Kerala presented with complaints of thick, reddish patches covered with silvery scales over upper and lower limbs, abdomen, back and scalp in the past 25 years. Skin lesions are recurring in nature and are associated with severe itching sometimes. It seems to be aggravated during winter & autumn seasons. Itching with dryness and cracking of affected skin is worse for the last 1 month. Had disturbed sleep in the last 3 years and pain over the third toe of the right foot and medial side of the right elbow in the last 3 weeks.

The patient was examined followed by an initial assessment and detailed history of presenting complaints and personal history were taken. The patient was self-employed by occupation, well-nourished, following a mixed type of diet and did not have a family history or any addictions. The patient had undergone the conventional type of treatment before coming to our hospital. He used topical corticosteroid creams, Salicylic acid shampoos for external application and adminis-

tered tablets such as infliximab or methotrexate to decrease the production of skin cells and suppresses inflammation. But skin lesions are recurring from time to time.

On examination: General condition - moderate, afebrile and stable person with Pitha Vata constitution. Pulse Rate - 76/min, regular, heart rate 70/min, respiratory rate 14/min, blood pressure 116/70 mmHg, body weight 79 kg, height 175 cm and BMI 25. The patient had a history of Psoriasis in the last 5 years no pallor, icterus was present. Routine investigations such as Complete Blood Count, Random Blood sugar and Urine Routine and Microscopic were in the normal range.

## Investigations

Routine investigation such as complete blood count, fasting blood sugar, liver function test, lipid profile and urine routine and microscopic were done and all found within normal range Tables 1 and 2.

## Characteristics of psoriatic plaques

On examination, it is characterized by large, flat plaques with a typical silvery scale. These plaques join together to involve extensive areas of skin particularly on upper limbs, lower limbs and the trunk. Also, present on the scalp. On removal of scales, smooth reddish skin often associated with blood droplets is seen.

As per Ayurvedic text- *Ashtanga Hrudaya*, the symptoms of *Sidhmakushta* are Table 3:

- *Rooksham bahi*
- *Snigdham anthah, Slakshnasparsa, Tanu, Sveda-Tamra, dougdhika pushpavat*
- *Grushtam rajah kiret*
- *Prayena Urdhwakaye*

## Assessment criteria

### Subjective criteria

1. *Rooksham bahi* (Dry, thick patches)
  - (a) Absence of dry, thick patches : 0
  - (b) Mild dryness & thickened patches : 1
  - (c) Moderate dryness & thickened patches : 2
  - (d) Severe dryness & thickened patches : 3
2. *Snigdham anthah, Sveta-tamra, Tanu, dougdhika pushpavat* (Erythema)
  - (a) Absence of Erythematous lesion : 0
  - (b) Mild Erythematous lesion : 1
  - (c) Moderate Erythematous lesion : 2
  - (d) Severely Erythematous lesion : 3
3. *Grushtam rajah kiret* (Scaling)

**Table 1. Complete Blood Count and Lipid Profile**

Complete Blood Count		
Test Name	Test value	Ref. range
Total Leucocyte count	6.35 x10 <sup>3</sup> /μL	4.0-10.0
Haemoglobin	12.5 g/dL	12.0-15.0
Platelet Count	309x10 <sup>3</sup> /μL	150-410
Total RBC	4.17x10 <sup>6</sup> /μL	3.9-4.8
Hematocrit-PCV	36.6%	36-46
MCV	87.8 fL	83-101
MCH	30 pg	27-32
MCHC	34.2 g/dL	31.5-34.5
MPV	9.5 fL	9.2-12.1
RDW_SD	40.2 fL	38-50.0
PDW	10.4 fL	9.5-15.2
Neutrophils	44.7%	40-80
Lymphocytes	39.8 %	20-40
Monocytes	12.1 %	2.0-10.0
Eosinophils	2.4 %	1.0- 6.0
Basophils	0.8 %	1.0 -2.0
Lipid Profile		
Test Name	Test Value	Ref. range
Total Cholesterol	180.95 mg/dl	Borderline High:200-239 High:>=240
Triglycerides	151.69 mg/dl	<150
HDL	74.21 mg/dl	40-60
LDL	100.4 mg/dl	Optimal: <100 Near optimal: 100-129
VLDL	10.34 mg/dl	2-30
TC/HDL Ratio	2.44	3.5-5
LDL/HDL Ratio	1.35	< 3.5

- (a) No scaling : 0
- (b) Mild scaling from all lesions : 1
- (c) Moderate scaling from all lesions : 2
- (d) Severe scaling from all lesions : 3

**Objective criteria**

1. Candle grease sign: When a Psoriatic lesion, is scratched with the point of dissecting forceps, a candle grease-like scale can be repeatedly produced.

**Table 2. Liver Function Test and Renal Function Test**

Liver Function Test		
Test Name	Test Value	Ref. range
Bilirubin- Total	0.75 mg/dl	0.3- 1.2
Bilirubin- Direct	0.14 mg/dl	< 0.2
Bilirubin- Indirect	0.61 mg/dl	0-0.9
AST	30.11 U/I	13- 39
ALT	26.19 U/I	17- 52
Alkaline Phosphatase	50.53 U/I	33 -98
GGT	11.43 U/I	<38
Total Protein	6.65 gm/dl	6.5- 8
Serum Albumin	3.97 gm/ dl	3.5 – 5.2
Serum Globulin	2.68 gm/dl	2.32 -4.0
Albumin/ Globulin Ratio	1.48	> 1
Renal Function Test		
Test Name	Test Value	Ref. range
BUN	3.77mmol/L	2.1 – 7.1
Serum Creatinine	0.76 mg/ dl	0.66-1.2
e GFR	97 ml/min	>90
Uric acid	5.41 mg/dl	2.6 -6

**Table 3. Diagnosis of Sidhmakushta (Psoriasis)**

Sign and Symptoms	Occurrence
<i>Bahir ruksham</i> (Dry, thick, well-defined lesions)	Present at the patch area
<i>Snigdham anthah, Slakshma sparsa, Sweta-tamra, Tanu, Dougdhika pushpavat</i> (Erythema)	Present on the removal of scales from the patches
<i>Grushtam rajah kiret</i> (Scaling)	Present at the patches
<i>Urdhwakaye prayena</i> (Mostly seen in Extensor part of limbs)	Present
Candle grease sign	Present
Auspitz sign	Present

- (a) Absent : 0
- (b) Improved : 1
- (c) Present : 2

2. Auspitz sign: When the outer scales of the patches are mechanically removed, a red, moist surface is seen within a few minutes. On further scarping, a small blood droplet appears on the erythematous surface.

- (a) Absent : 0
- (b) Improved : 1
- (c) Present : 2

### Treatment given

So, *Shodhana Chikitsa* followed by *Shamana & Rasyana chikitsa* showed good result in this case. The line of treatment for this case is as follows

#### 1. *Deepana-Pachana/ Rookshana* therapy:

- (a) Internal
  - i. **Vaiswanarachurnam**-3grams mixed with 75 ml of lukewarm water twice daily half an hour before meal for 3 days.
  - ii. **Patolakaturohnyadi kashayam** -15 ml mixed with 60 ml of lukewarm water at 6 am and 6pm daily for 7 days.
  - iii. **Triphala tablet** -2 after dinner for 7 days
  - iv. **Manibhadra gulam**-10 grams mixed with 1 gram **Haridra churnam** at bedtime for 7 days
  - v. **Sumana tablet** from Rajah Ayurveda – 2 tablets twice daily after food for 7 days
- (b) **External:** *Udgharshanam* with *Nimbaharidradi churnam* mixed with gruel water over the body after applying *Danthappala* and *dhurdhura patradi keram* over the head for 7days.

#### 2. *Snehapanam*

- (a) **Aragwadhamahathiktakam ghrutam** given in the morning at 7 am in increasing quantity for 6 days. Lukewarm dried ginger water was given as *Anupanam*.
- (b) **Diet recommended during sneha panam** : Kanji after digesting ghee. *Mudgayoosham* / vegetable soup if needed in the late afternoon and Kanji for dinner if needed according to the doctors’ advice. Advised Luke warm water for drinking Table 4.

After 6 days *Samyak Snehapana* lakshanas were seen.

**Table 4. Luke warm water advisory**

Day	Quantity
1	30 ml
2	60 ml
3	90 ml
4	120ml
5	150 ml
6	175 ml

#### 3. *Snehana /Swedana*

- Given **Abhyanga** with **Rajasuryaoil**, **S iroabhyanga** with **Danthappala keram+ Dhurdhurapatradi keram**). This was followed by **Avagahaswedam** with **Nalpamaradi kwatham**.

#### 4. *Virechanam*

- *Virechana dravya-* **Avipathi choornam**-10 grams & **Thrivrut choornam** – 4 grams mixed with hot water –given in empty stomach at 8 am. Advised to drink **koshna jal** (Luke warm water) frequently and lie on the left side with a proper covering of the body.
- *Virechana vega* (Loose Motion) started after 90 minutes.

Totally 9 vega loose Motions till 2 pm. Vitals such as BP, Pulse, HR were within normal range. Pulse Rate - 70/min, regular, heart rate 68/min, respiratory rate 14/min, blood pressure 110/70 mm Hg

- **Peyaadi Samsarjanakrama** (Dietetic rules after **Panchakarma** ) was given for 3 days.

#### 5. *Samana Therapy - Aragwadadi Thakradhara & Shamana yoga*

**Sarvanga Takradhara** with **Musta & Aragwadadigana sidha** thakram and internal administration of *Shamana Yoga* started 3 days after *Virechana* as follows:

- Given **Sarvanga Takradhara** with the duration of 40 minutes in the morning after application of **Rajasurya** oil over body and head - For 08 days.
- **Bahir parimarjana therapy** (External application) as **lepanam** with **Eladi choornam** mixed with fresh coconut milk over the affected part of the skin - For 08 days.
- Followed by **Kshalanam** (lavation) with the decoction made out of dried **Nellikka** (*Emblica officinalis*), **mudga** (Green gram) and **Nimba patra** (Neem leaves) - For 08 days.

#### 6. *Shamana yoga:* For 10 days

- Given **Mahathikthakam kashayam** – 15 ml mixed with 60 ml of lukewarm water and 1 **Arogyavardhini gutika** at 6 am and 6 pm.
- **Pancha dasangam kashayam choornam**-5 grams boil with 150ml water, reduce it to 75ml and take 1 hour before lunch.
- **Sumana tablet** from Rajah Ayurveda-2 after dinner.
- **Valiyamadhusnuhi rasyanam**-10 at bedtime.

The diet plan and yoga advised during the treatment course are detailed below. Foods and activities that aggravate *vata* and *pitha doshas* were excluded during the treatment Table 5.

**Table 5. Diet advised during treatment course**

Pathya	Favourable foods	Apathya (Foods to be avoided)
Grains	Brown rice, barley, quinoa, Buckwheat	White flour, Polished rice
Pulses	Green gram, toor dhal, soy-bean etc.	Black gram, Bengal gram, horse gram etc.
Vegetables	Bitter vegetables, snake gourd, Ash gourds, leafy vegetables, carrot, pumpkin, Bottle gourds, beet, greens, beans, broccoli, cauliflower, ivy gourds, potatoes etc.	Sour or unripe vegetables, brinjal, radish etc.
Fruits	Dark fruits, Pomegranate, gooseberry, Cherries, apples, strawberry, figs etc.	Sour fruits such as citrus fruits, grapefruits, tamarind, Unripe fruits.
Nuts & seeds	Almonds, Walnuts, pumpkin seeds, sunflower seeds	salted nuts, other seeds, sesame seeds etc.
Oils	Rich in omega 3 fatty acids. Olive oil, flaxseed oil, coconut oil	Corn oil, palm oil, animal fat etc.
Spices	moderately Ginger, curcuma, coriander, Fenugreek, long pepper etc.	Hot spices such as chilly, raw garlic & onion etc.
Milk products	Medicated buttermilk, Ghee	Milk, curd, Butter, cottage Cheese
Sweeteners	Raw sugar and honey in small quantities.	Artificial sugars, sweets, pastries etc.
Beverages	Fresh vegetable soup and fresh juices, herbal tea.	Tea, coffee, soft drinks and alcohol
Activities	Mild to moderate exercises, proper sleep, Proper diet habits at regular times.	Laziness, daytime sleep, late-night sleep, improper food habits, fast foods and intake of processed/ fermented foods and red meat.

## Yoga

Yoga/ active exercise are necessary for the effective treatment of psoriasis as it is beneficial to keep flare-ups under control and to ease symptoms by relieving stress.

Patient was advised Meditation/ Pranayama at the beginning of the treatment course and mild to moderate yogaasanas along with different breathing exercises after Shodhana therapy according to his condition. Yoga also helps the patient cope with sleep disturbance, anxiety, and isolation related to the illness. The patient was discharged after 28 days of the treatment course.

### Follow up Medicines for 2 months:

1. *Mahathikthakam kashayam* tablet – 2 tablets twice daily 1 hour before breakfast and dinner.
2. *Haridra khandam* –5 grams once daily half an hour before food.
3. *Valiyamadhusnuhi rasayanam* - 10 grams at bedtime (follow *pathyahara vihara*).
4. *Rajasurya* oil - For external application. Advised for exposure to sunlight for a few minutes.

Advised review after 3 months.

## Results and Discussion

The Complete Blood Count, Fasting Blood sugar, Liver function Test, Lipid Profile, Urine Routine and Microscopic all were found within the normal range.

In the above case study, the patient got complete relief from symptoms of *Sidhma kushta* (Psoriasis) Table 6.

**Table 6. Comparison of symptoms before and after treatment**

Sign and Symptoms	Before Treatment	After Treatment
<i>Ruksham bahi</i> (Dry, thick patches)	2	0
<i>Snigdham anthah, Svtatamra, Tanu, dougdhika pushpavat</i> (Erythema)	2	0
<i>Grushtam rajah kiret</i> (Scaling)	3	0
Candle grease sign	2	0
Auspitz sign	2	0

This is achieved by a proper routine and removal of harmful factors from the patient’s living environment. The treatment for psoriasis goes through several stages such as *dipana/ pachana* (Enhancing digestion & metabolism), *Rukshana* (drying therapy), *Snehana* (oleation), *wedana* (sweating therapy), *Shodhana* (purificatory therapy) and *Rasayana* (Rejuvenative Therapy). The treatment comprises dietary regulations, daily regimens, yoga that includes *Asana, Pranayama* and *Meditation*.

This *Panchakarma* treatment has its unique efficacy in eliminating unwanted toxins and normalizing bioenergies both mentally and physically. In this case study, *Virechana* (Purgation) showed good results along with Shamana Yoga consumption and *Sarvanga Dhara* therapy. *Virechana Chikitsa* helps to remove vitiated *Dosha* from the body. Administration of *Shamana Yogas* that is the combination of *Maha thiktakam kwatham*, *Pancha dasanga kashyam* and *Madhusnuhi rasyana* have *Kushthaghna* as well as *Rasayana* effect on skin. As Psoriasis is a psychosomatic disease, *Takradhara* and intake of *Sumana* tablets may help to relieve the stress. Many studies supporting our study result have shown that *Takradhara* has a significant role in relieving stress-induced disorder<sup>(11-13)</sup>. *Takradhara* had *Vata Pitta Shamaka* property which not only reduces stress and tension but also enhances the circulation of the brain, improves memory, nourishes the hair on the scalp, calms the mind and body<sup>(14)</sup>.

## Conclusion

In this case study, we got good results from *Panchakarma* therapy and Ayurvedic medicine. The treatment given for *Sidhmakushta* (Psoriasis) was *Pachana/ Rukshana, Shodhana, Shamana* medicines and *Sarvang Takradhara* therapy; which helped in *Aampachan*, removal of vitiated *Dosha* from the body and to bring *Samyavastha* (balanced condition) of *Doshas*. Hence the above treatment helps to relieve symptoms of disease, to improve the quality of life and also attempt to provide safe and effective treatment to the patient. Randomised Clinical Trial needs to be conducted to validate results in the larger sample which will generate evidence for support.

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