



## Case Report

*Thuvaraka rasayana* regimen in *Psoriasis vulgaris* – A case report

K. Krishna Kumar, James Chacko\*

Kayachikitsa Department, Amrita School of Ayurveda, Vallikavu, Clappana PO, Kollam 690525, Kerala, India



## ARTICLE INFO

## Article history:

Received 27 May 2017

Received in revised form

6 December 2017

Accepted 17 April 2018

Available online 1 January 2019

## Keywords:

Psoriasis vulgaris  
 Thuvaraka rasayana  
 Vamana  
 Virechana

## ABSTRACT

Psoriasis is one among the wide-spreading, chronic, frequently recurring diseases of the skin. Its world prevalence varies between 0.09% and 11.4% in 2013 which reported in 2006 as in between 0.5% and 4.6%. In Ayurveda, the description of Kushta-roga viz. Vata-Kaphaja kushta finds similarity with psoriasis. The common sites of occurrence of psoriasis are scalp, elbow, knee, earlobes and sole which are also considered as the location of Vata and Kapha.

The science of Ayurveda has anecdotal accounts of success in the management of psoriasis in the actual clinical practice even though it lacks the evidence-based medical dermatology research data. It observed that the physicians adopt several treatment protocols for the cure of this disease in clinical practice, which was not rigorously evaluating in research settings. This paper/report is one of on the ‘Thuvaraka rasayana’ is one such component that could improve treatment outcomes in Psoriasis.

A pre and post test case report selected of a 36-year-old lady patient who diagnosed as having stable psoriasis vulgaris for last seven years. She was administered with internal and external therapies along with Shodhana therapies (bio-cleansing procedures) and then followed by intake of Thuvaraka rasayana. The total duration of the treatment was 43 days, and the Study subject assessed before treatment, after treatment and on follow-up for improvement using PASI scoring, and histo-pathological study. All the symptoms observed in the beginning were found considerably reduced, and the severity also found mild. On the follow-up, it concluded that the lesions disappeared completely and the skin set back to its normal texture. Even though psoriasis is an autoimmune disease where recurrence rate found more Shodhana therapy and Thuvaraka rasayana have a definite role.

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## 1. Introduction

Psoriasis is one among the wide-spreading, chronic, frequently recurring diseases of the skin. Its world prevalence varies between 0.09% and 11.4% in 2013 [1] which reported in 2006 as in between 0.5% and 4.6% [2]. Topical corticosteroids are the frequently prescribed and first among the standard of care medication for treating mild to moderate psoriasis along with usage of Vitamin D analogs, Topical retinoids, Salicylic acid and Moisturizers. In Ayurveda, the description of Kushta-roga viz. Vata-Kaphaja kushta finds similarity with psoriasis [3]. The common sites of occurrence of psoriasis are scalp, elbow, knee, earlobes and sole which were also considered as

the location of Vata and Kapha [4]. Continuous usage of corticosteroids leading to serious local, systemic and psychological side effects [5] is the main drawback of the present standard of care.

The science of Ayurveda has anecdotal accounts of success in the management of psoriasis in the actual clinical practice even though it lacks the evidence based medical dermatology research data. It is seen that several treatment protocols are adopted by the physicians for cure of this disease in clinical practice which have not been rigorously evaluated in research settings. This paper/report is one of on the “*The Thuvaraka Rasayana Regimen*” [6,7] is one such component that could improve treatment outcomes in Psoriasis. Two similar studies found Ramteke Rajkala Shankar1 Vinodkumar G.2 Patil Panchakshari D. which are also reported to be showing the efficacy of this drug in psoriasis. Here *Thuvaraka rasayana* is the extracted oil obtained from the seeds of ripened fruits of plant named *Thuvaraka (Hydnocarpus laurifolia)* (Dennst) Sleumer of family Flacourtiaceae and English name Marothi tree). The oil was

\* Corresponding author.

E-mail: [drjames.2008@rediffmail.com](mailto:drjames.2008@rediffmail.com).

Peer review under responsibility of Transdisciplinary University, Bangalore.

extracted after boiling it three times in the decoction of bark of *Khadira* plant (*Acacia Catechu* of Fabaceae family). The oil of this fruit contains Chaulmoogric acid, Hydnocarpic acid & palmitic acid as main component. It has a pungent taste and a typical smell. In Ayurveda it is termed as it has the property of *Katu Tikta rasa* (Pungent and Bitter taste), *Theekshna*, *Snigdha guna* (penetrating, unctuous properties), *Ushna Veerya* (hot in potency) and *Katu Vipaka* (pungent as end taste of digestion). This oil is said to be having the property of mitigating the disorders of *kapha vata* origin.

A pre and post test case report selected of a 36-year-old lady patient who had diagnosed as having stable psoriasis vulgaris for last seven years. She was administered with internal and external therapies along with *Shodhana therapies* (bio-cleansing procedures) and then followed by intake of *Thuvaraka rasayana*. The total duration of the treatment was 43 days and the study subject assessed before treatment, after treatment and on follow-up for improvement using PASI scoring, and histo-pathological study. All the symptoms observed in the beginning were found considerably reduced, and the severity also found mild. On the follow-up, it concluded that the lesions disappeared completely and the skin set back to its normal texture. Even though psoriasis is an autoimmune disease [9,10] where recurrence rate is found more *Shodhana therapy* and *Thuvaraka rasayana* have a definite role.

Psoriasis is a common non-infectious disease of the skin characterized by the well-defined erythematous plaque with large adherent silvery scales. Its exact etiology remains unknown but has a genetic predisposition, and certain stimuli provoke the psoriasis-like trauma, climate, post infection, adverse drug reaction, psychogenic stress, cigarette smoking and alcoholism. Among all, stress is said to be the key stimuli. The primary-psychological stress is acting as a precipitating factor in the causation psoriatic lesions. The presence of disease will then again become the causation of secondary stress, making the disease worst. *Kushta* is the term used in Ayurvedic text for all skin disorders including leprosy. The *Vata–Kapha* variety of *Kushta* shows resemblance with psoriasis in symptomatology which is of six [11] in number among which *Kitibhakushta* [12], *Ekakushta* and *Sidhmakushta* [13] have maximum resemblance with vulgaris variety of psoriasis. The derangement of seven factors including *Tridoshas* (three humors present in the body), *Twak* (skin), *Rakta* (blood tissues), *Mamsa* (muscle tissues) and *Lasika* (blood plasma) form the base for vitiation of *Srotas* (the channels which are transporting the metabolized tissues in the body) [14,15]. These vitiated factors spread transversely into the deeper *Dhathus* (body

tissue elements) and *Srotas* producing scaly lesion. Due to the complexity in manifestation involving *Sapta-dooshyas* (the seven factors involved in creating disease *Kushta*) it becomes difficult to treat and require *Shodhana chikitsa* as mentioned in the Ayurvedic classics. Since the deeper *Dhathus* are affected repeated *Shodhana* (bio-purificatory methods) is necessary along with *Rasayana* (keeping the metabolic end product devoid of disease-producing toxic materials) [16] which will strengthen the *Srotas*. The *Thuvaraka rasayana* is selected as it is a best *Naimithika rasayana* (the drugs used in particular disease condition) in *Kushta*. Apart from this *rasayana* drug in this study various internal and external therapies were adopted as per the classics and the results found were encouraging.

## 2. Case information

A female patient of thirty-six-year old with the symptoms of psoriasis vulgaris admitted. Before the indoor management with Ayurvedic intervention, the patient was on Ayurvedic Conservative Outpatient management. The result of the Outpatient management was not found satisfactory and the patient was advised to get admitted. Then skin biopsy was taken along with other blood investigations to rule out other systemic illness before the indoor management with Ayurvedic intervention.

### 2.1. Clinical finding

The symptoms found in the beginning are Severe generalized itchy and scaly patches all over the body since seven years with remission and exacerbation, Bleeding spot while removing scales, Severe Constipation, Gastritis, Unusual falling of hair from the scalp since three years.

Based on the above complaints and histo-pathological examination the patient was diagnosed as *Psoriasis vulgaris* (Table 1).

### 2.2. Physical examination

At the time of testing the patient presented with severe localized red itchy and scaly rashes in different parts of the body.

#### 2.2.1. Clinical observation

- 1) Severe erythematic and plaque on the thighs, low back below the B/L breast and on the scalp.

**Table 1**  
Time line of the study.

Date	Day of event conducted	Label of event	Details of the event	Assessment observation
Date 06/2/2016	0 day	Screening		PASI score 42
Date 18/3/2016	1st day	Initiation of protocol (base line)	<i>Rookshana</i> for 3 days. <i>Snehapana</i> for 5 days. <i>Utkleshana</i> for <i>Vamana</i> 1 day	Presence of dense psoriasis plaque in biopsy report
Date 28/3/2016	10th day	<i>Vamana</i>	<i>Madhyama shudhi</i> in <i>Vamana</i> 4 days, <i>Samsarjana krama</i> <i>Snehapana</i> started for three days. Two days <i>Sarvanga abhyanga</i> and <i>bashpa sweda</i>	Biopsy report Presence of psoriasis plaque (22/3/2016)
Date 6/4/2016	19th day	<i>Virechana</i>	<i>Madhyama shudhi</i> in <i>Virechana</i> so	
Date 10/04/2016	23rd day	<i>Thuvaraka rasayana</i>	4 days <i>Samsarjana Krama</i>	
Date 22/04/2016	35th day	Discharge and post treatment assessment	Given for 5 alternative days, Diet restriction for another 15 days	PASI score reduced to 20 Presence of psoriasis plaque in biopsy report
Date 22/5/2016	After one month assessment	Follow up		25/3/2016 Absence of psoriasis plaque in biopsy report PASI score reduced to 0

- 2) Positive Auspitz's sign and Candle grease sign.
- 3) PASI scoring – 42.

### 2.2.2. Report on blood examination

Blood examinations were performed before (BT)(18/03/2016) and after the treatment (AT)(22/04/2016) marked improvement in the total WBC count from 4600 mm<sup>3</sup> (BT) to 5800 /mm<sup>3</sup> (AT). Eosinophil count and monocyte count also showed improvements. ESR count showed remarkable change from 70 mm/h to 25 mm/hr. The lipid profile showed insignificant rise of total cholesterol, HDL, LDL and VLDL, but all were within normal limits. Renal and Liver function test remained normal. A detailed information on the report of blood examination has been provided as [supplementary material](#). The ECG taken was observed and showed normal reading in all the leads at the time of screening.

### 2.3. Diagnostic assessment

Biopsy was taken from a fully developed primary lesion and the biopsy report with slides and blogs was collected and stored.

The treatment protocol was planned as *Deepana*, *Pachana* with *Gandharvahastadi kashaya* 20 mL thrice in a day and *Vaishwanara choorna* 2 tsp thrice in a day with *Kashaya* to increase the *agni* (digestive fire) so as to attain *Samyak Snigdha Lakshana* when *Snehapana* is done (optimum signs of proper absorption of fat in the body). The duration of *Deepana Pachana* was three days. After seeing proper *Nirama Lakshana* (optimal symptoms of digestion) and the patient was given *Snehapana* with *Mahakhadira Ghrita* with initial test dose of 30 mL to determine the *agni* that eventually got digested in 2 h. It was continued for another 4 days with the doses of 50 mL, 75 mL, 125 mL, 200 mL and 275 mL, respectively followed by *Abhyanga* and *Bashpa Sweda* (oil massage and steam bath). On the 2<sup>nd</sup> day after the *abhyanga* and *bashpa sweda*, the *Vamana* therapy was done. *Madhyama shudhi* (medium bio-purification) was observed and was given *Samsarjana karma* (diatic restrictions) for 4 days (5 *annakala*). *Snehapana* for *Virecana* was started with *Mahakhadira ghrita* with the doses 55 mL, 130 mL and 265 mL and was calculated based on the power of digestion. *Sarvanga Abhyanga* and *bashpa sweda* was done for 3 days followed by *Virecana* with *abhayadi modakam*. *Madhyama shudhi* in *Virecana* and *Samsarjana karma* was also done for 4 days. After confirming the increase in the digestive fire, the administration of *Thuvaraka rasayana* has been started in the empty stomach. The initial dose was 10 mL. The patient vomited after 2 h of medicine intake. The patient had purgation for 4 times. The diet was restricted to liquid up to 1 pm. Then patient was served with gruel with minimum rice. The patient was given with a day of rest. This was an observation as the medicine acted as its normal function *Ubhaya Gata Shodhana*. Next day 20 mL of medicine has been given. The patient vomited once but the purgation was done for 3 times. After a day's rest, the patient was administered with 20 mL of the medicine the patient vomited twice and purgated thrice same diet and rest were followed. Next day 20 mL of medicine has been given the patient purgated thrice. The same diet and rest have been given. One more day the medicine has been given and the patient purgated for three times. After five days rest and diet restriction have been followed. The diet was structuredly arranged: *Samsarjana karma manda*, *peya*, *vilepi*, *krita yusha*, *akrita yusha* and *odana* for 5 days.

The histo-pathological study and PASI scoring were done. It is observed that the histo-pathological study showed the existence of psoriasis but the PASI scoring reduced 3.8 from 42 then the patient was discharged no medication were provided.

Assessment of response: Both subjective and objective parameters were used for clinically assessing the response to the treatment. Histological finding were given much importance, the

clinical assessment was carried out by using certain parameters to assess the response of the treatment in itching, scaling, thickening, erythema, dryness and Auspitz signs these signs and symptoms were graded using simple description scale as absent mild moderate severe and appropriate scoring was given.

### 3. Discussion

All the treatment selected for the patient was mainly aimed to revert the pathological process in *kushta*. Among the seven morbid factors, the *Vata* and *Kapha* had a major role in the pathogenesis and the *Mahakhadira Ghrita*, that was given for *Snehapana*, which has *Vata Kaphahara* property. It showed good improvement in decreasing itching in initial few days. The *sneha* and *sweda* helped in bringing the *doshas* from the deeper *dhatus* to *koshta* and by means of *vamana* and *virechana* it was removed. *Snehapana* with *Mahakhadira Ghrita* that has *vata kaphahara* in *shamana* doses, when given in larger amount, helped to dislodge the excessively morbid dosha from deeper *dhatus* without causing any strain to the patient. It also did the *Utkleshana* in the tissue and facilitated the movement of morbid *doshas* to the *koshta* by getting liquefied with *swedana* and come to the *koshta* and get expelled from it by emesis and purgation. *Abhyanga* and *Sweda*



Fig. 1. Photographs showing timely improvements.

**Table 2**  
The histo-pathological report of the patient in different time intervals.

	06 Feb 2016	22 Mar 2016	25 May 2016
Epidermis	Parakeratosis	–	–
Epidermis	Hyperkeratosis	Mild hyperorthokeratosis	–
Epidermis	Acanthosis – moderate	Mild acanthosis	–
Epidermis	Supra papillary thinning of epidermis	–	–
Epidermis	–	Wedge shapes hypergranulosis	–
Stratum corneum of epidermis	–	Focus showing munro's microabscess like appearance	–
Epithelium	Focal elongation of rete ridges	Foci showing bulbous rete pegs	A possibility of fibroepithelial polyp is considered
Epithelium	–	Focal papillomatosis	–
Dermis	Dermal Papillae showing edema and dilated capillaries	Sublesional as well as dermal mixed inflammatory reaction	–

was done with *Mahakhadira Ghrita* aiming to utilize its *vata kaphahara* property on skin. Ayurveda has mentioned seven layers of skin and *kushta* get localized in the fourth and fifth layer. The repeated *shodhana* therapy in the form of *vamana* and *virechana* the deranged *doshas* even in the deeper *dhatu*s can be removed. It also helped to remove the *ama* in the *rasa* and *rakta dhatu*s that normalizes the *rakta* from which the skin was formed. *Thuvaraka rasayana*, considered as a *Shodhya-rasayana* induced emesis and purgation, their by cleansing the system and paved a way for the formation of a new skin. As per Ayurveda, the skin was formed from *rakta dhatu*. This was due to the effect of *thuvaraka* on *pitta sameekarana* (balancing the *pitta* by improving the *dhatwagni*). *Snehapana* and *shodhana* was considered to be the main line of treatment for *kushta* in correcting the derangement of morbid *doshas*. *Shodhana* helped to eliminate the *dosha* as well as accumulated *amavisha*.

The histo-pathological study revealed a complete remission of the disease without the usage of conventional therapy that tend to have side effects. The patient was exposed to vigorous treatment modalities, often exhaustive and prolonged inpatient stay were considered as the limitations of the study.

#### 4. Conclusion

After the end of the study all the symptoms observed in the beginning were considerably reduced and the severity also found mild. On the follow up it is found that the lesions were disappeared completely and the skin set back to its normal texture (Fig. 1). The PASI scoring had come down from 42 (base line) to 0 (at the end of follow up). A considerable changes were observed in the histo-pathological study and are tabulated in Table 2.

#### Conflict of interest

None.

#### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jaim.2018.04.003>.

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