



## Management of psoriasis through ayurveda: case study

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### Abstract

This case study intends to evaluate the efficacy of *Vaman-Virechan* in the management of recurrent psoriasis. A 38 year male presenting with psoriasis with mild arthritis was diagnosed as *Ekkustha* (*kapha-pitta dominance*) as per Ayurveda. *Vaman-Virechana* and *Panchtiktaghrit gugglu* were given to the patient. Symptoms were assessed with PASI at pre and post therapy along with 6 months follow up. Improvement was observed with PASI score (reduced from 37.7 to 8.7). During follow up period no recurrence observed. *Ayurveda shodhan & shaman* therapy resulted in effective management of Psoriasis as assessed by validated scales.

**Key Words:** *Ayurveda, Psoriasis, Panchtiktaghrit gugglu, vaman, virechana*

### Introduction

Psoriasis is a chronic, inflammatory, immune-mediated proliferative, disfiguring and disabling disease for which there is no cure. In addition to the involvement of skin, inflammatory arthritis (psoriatic arthritis) may develop. Patients suffering from psoriasis are at higher risk of developing cardiovascular and other Non Communicable Diseases. Prevalence of psoriasis in countries vary between 0.09% and 11.4%. Marked socioeconomic load is considered on an individual level because of lost opportunities in professional life and elevated economic burden for treatment expenses as per WHO (World Health Organization 2016). Methotrexate, corticosteroids etc. can be used for both skin and joint manifestations in conventional system of medicine, but their long-term use is hindered by safety concerns. (Gan, *et al.* 2013) Therefore, there is need to develop a management for psoriasis which can give benefit on a long run without any adverse effects. On the basis of sign & symptoms like reduced sweating (*Asweda*), extended skin lesions (*Mahavastu*), scaling of skin similar to the scales of the fish (*Matsya shakalopama*), pink discoloration

(*Aruna varna*), blackening of the part (*Krishnavarna*) etc, this disease can be correlated with *Ekkustha* (Shastri, 2011) In present case study there is *kapha-pitta* dominancy with involvement of *tridosha*. Therefore for this study, *vaman* and *virechana* as *samshodhan* (bio-cleansing therapy) and *Panchtiktaghrit gugglu* was planned as described in treatment of *kustha* (Shastri, 2007).

### Material and Methods

In the present case, a 37 year old male, bus conductor came to the Department of Pañchkarma, Rishikul Campus, Haridwar, Uttarakhand, India with a history of red and white lesions (scaly thickened skin) on whole body in patches with associated itching, burning and increasing size of patches from 18 years. He took various module of treatment but patient was reluctant, because remission of symptoms occurs after withdrawal of medicine so he approached Rishikul hospital for conservative treatment. Past history of patient included excessive fasting along with exertion before starting of symptoms initially. Symptoms especially itching increases with cold wind, cloudy environment and winter season along with increase in stiffness of joints like knee, phalanges. Declaration of Helsinki was followed during case handling.

During *Astavidha pariksha*; *Nadi* (~pulse) was *Vata-Kaphaja*; *Jihva* (~tongue) was clear/uncoated; *Mala* (~stool) was *Niram*; *Mutra* (urine) was of light yellow coloured; *Sabda* (speech), *Sparsa* (touch), *Drika* (eyesight), *Akriti* were found

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normal. *Prakriti* (~constitution) of patient was *kapha-pitta*, *Vikriti*(~pathogenesis) was *Vata-Kaphaj*, *Samhana*(~body composition): medium and *Vyayam Shakti* (~exercise capacity) was *Pravar*, *Jarana Shakti*(~digestion capacity), *Ahara Shakti*, *Satva*, *Satyama*, *Bala*(strength) were found *Pravar*, *Agni* (~metabolism) was *Vishamagni* (~altered) during *Dashvidha Pariksha*. There was no history of streptococcal infection. During cardiovascular and respiratory system examination, findings were normal.

There were mild difficulties in movement of joints.

**Criteria for assessment:** Patient was assessed with Psoriasis Area and Severity Index (PASI) Score (British Association of Dermatologist n.d.) for the presenting symptoms (table1)

Morphology: Well defined, Dry and rough, raised, & light purple colored patches

Distribution - widely distributed

Pattern: scattered patches (Generalized)

No association of any other cutaneous disorders (alopecia areata, halo navus, atopic dermatitis, malignant melanoma & morphea)

Koebner's phenomenon- Present

Sensation – intact

Auspitz & Candle grease Sign - positive.

Course: Slowly progressive

**Pharmacological treatment:** *Vaman karma* (~induced vomiting), *virechana*(~purgation) *Trikatu Churna* 3 gm twice a day with lukewarm water given.

*Ghrutpana* with *panchtikta ghruta* was given in increasing dose pattern for 7 days when symptoms of *samayak snigdha* appeared.

*Vamana* carried out with milk, *Madanphalapippali*, *Vacca churn*.

After regimen (*sansarjana*), *Snehpana* started again for *Virechana* procedure till proper *snehpana* features. *Abhyanga* (massage) and *swedana* for 3 days was carried out. Thereafter, *Virechana* drugs i.e. 100 ml decoction of *Triphala* along with *Trivrita Avaleha* 60 gm was given.

**Follow up and Outcomes:** Before and after treatment grading of symptoms is shown in table 2.

After completion of *Vaman- virechana*, *Panchtiktaghrut gugglu* was given 2 TDS before meal for 1 month along with external application of *Nimbadi Tail*. Follow up was done after 6 months.

Adherence and tolerability of intervention was assessed by the patient. There was no adverse or unanticipated event during treatment. No diagnostic or other tests were performed after treatment.

PASI score – Before treatment- 37.7, After treatment – 8.7

**Table 1: Showing the pasi score calculation and grandings**

Table 1: Showing the PASI score calculation and grading				
Plaque characteristic Erythema Induration/ Thickness Scaling Lesion score sum (A)		Lesion score	Percentage area affected	Area score
		0- None	Area Score (B)	0 = 0%
		1-Slight	Degree of involvement	1 = 1% - 9%
		2-Moderate	as a percentage for each body	2 = 10% -29%
		3-Severe	region affected (score each	3 = 30% -49%
		4- Very severe	region in between 0 -6)	4 = 50% -69%
				5 = 70% -89%
				6 = 90% - 100%
Multiply Lesion Score Sum (A) by Area Score (B), for each body region, to give 4 individual subtotals (C).				
Subtotals (C)				
Multiply each of the Subtotals (C) by amount of body surface area represented by that region, i.e. x 0.1 for head, x 0.2 for upper body, x 0.3 for trunk, and x 0.4 for lower limbs				
Body surface area	X0.1	X0.2	X0.3	X0.4
Totals (D)				
Add together each of the scores for each body region to give the final PASI Score				



## Results and Discussion

Patient was having lower middle socioeconomic status. After 2 months of treatment, grading of scaling were changed from 3 to 0 and 1 and erythema grading to 1 according to body area which was major a change. 50% change in area score was observed in all areas after treatment. Burning and itching got relieved 100%. Induration grading was not changed in head and lower limbs. Change in grading of other parts was from 2 to 1 and 3 to 2 which is negligible.

Area occupied by the patches got more than 50% decreases. After treatment PASI score was significantly reduced from 37.7 to 8.7. In the follow up of 6 months, patient has no recurrence of previous patches, also no new patches developed on body. This case report is significant as it is a severe psoriasis and the patient had tried all possible conventional treatment modalities with no relief in symptoms even with continuation of medicine. Severe burning, itching were prevalent and compromising quality of life.

This case report intended to check the efficacy of *Vaman* and *Virechana* as *shodhan* and *panchtiktaghrit gugglu* as *shaman* in management of severe Psoriasis. Methotrexate used as conventional treatment of psoriasis limits epithelial hyperplasia by inhibiting DNA synthesis. Also

decreases the synthesis of a range of proinflammatory cytokines such as tumour necrosis factor  $\alpha$  and interleukin-1 (Czarnecka and Anna, 2014).

*Shodhana* procedure prevents the recurrence of *doshas* and same effect found in patient condition<sup>7</sup>. Decrease in Erythrocyte Sedimentation Rate, Low-density lipoprotein cholesterol (LDL), total cholesterol, Blood urea nitrogen (BUL), total serum protein, serum Creatinine, plasma histamine and plasma adrenaline along with increase in high-density lipoprotein cholesterol (HDL), Very Low Density Lipoproteins, and Immunoglobulin E level after 15 days of *Vamana* in healthy volunteers (Gupta *et al.* 2012) indicate towards the purification of *Rakta* which is basis for healthy skin. In a case control study on Psoriasis, evidence of electrolyte imbalance among psoriasis patients were found as an increase of electrolyte levels of sodium as compared to the controls (T *et al.* 2018). Increased sodium levels in the body cause raised sodium to potassium ratio, which leads to dry skin and mucosal membrane presenting as scaly patches on skin of psoriasis patients. Significant decrease in level of serum sodium was found after *virechana*. (Rais and Bhatted, 2013) Improvements found in study support this evidence.

**Table 2: Showing gradings of symptoms before treatment (bt) and after treatment (at)**

Plaque characteristic	Head		Upper body		Trunk		Lower limbs	
	BT	AT	BT	AT	BT	AT	BT	AT
Erythema	3	1	2	1	3	1	3	1
Induration/ Thickness	2	2	2	1	3	2	2	2
Scaling	3	1	3	0	3	0	3	1
Area Score	5	2	3	1	5	3	5	3

Secondary, *Pitta* is site of *agni* and thus responsible for maintainance of all *kriya* (~catabolism – anabolism process) and for glowing of skin *chhaya*. In Psoriasis, keratinocytes secrete inflammatory markers like interferons, cytokines (T *et al.* 2018). These markers can be considered vitiated *pitta* leading to psoriatic lesions. Considering *pitta* vitiation in this disease, *virechana* was planned as it is best in imbalanced *pitta*. *Panchatikta Ghrita Guggulu* have nutritive and *Shodhan* (~purifying) effect on all *dhatu*s seen by effect on present

disease in which all *dhatu*s are involved in pathogenesis. Positive effect on osteoarthritis (Akhtar *et al.* 2010) supports its anti-inflammatory and nutritive activity.

*Snehapana* and *shodhana* are main line of treatment for *kushta* (Shastri, 2011). In *Panchatikta ghrita guggul*, action of *Snehana* is carried out by *ghrit* and *Shodhana* by *tikta rasa*. Action on psoriasis can also be understood according to properties of contents (*Panchatikta* drugs, *ghee* & *Guggul*) used. *Panchatikta* drugs actions are as follows:



Nimbin, Nimbidin from *Nimb* (*Azadiracta indica*) possesses anti-inflammatory activity. Berberin and tinosporin from *Guduchi* (*Tinospora cordifolia*) acts as anti-oxidant and immune-potentiating. Vascicinone from *Vasa* (*Adhatoda vasica*) has anti-histaminic, anti-oxidant & anti – inflammatory effect. *Patol* (*Trichosanthes dioica*) has anti-oxidant & *Nidigdhika* (*Solanum xanthocarpum*) has anti-histaminic property. All these action support the action of *tikta rasa* (Shastri, 2009) i.e. *Pitta shamak*, *vikrut meda upashoshan*, *vranashodhak* (wound-purifier) and anti itching effect. (Lokhande et al. 2016)

*Purana Guggulu* (Commiphora mukul) has anti-inflammatory and immunomodulatory action. (Akhtar et al. 2010). Lipophilic nature of *Ghritha* facilitates entry of drug in to cell via helping in ion transportation and thus helps in restoring the normal texture to skin. (Lokhande et al. 2016). Also because of *Yogavahi* property *Ghritha* is helpful in increasing bio-availability of other *panchtikta* drugs and *gugghu* (Gupta, 2011).

Two months treatment has prevented the severe psoriasis for longer duration without side effect which was not relieved by contemporary medicines. Severe psoriasis patient of *Vata- kapha prakriti* having symptoms of *kapha-pitta* predominance in psoriasis can be treated with *Vaman-Virechana* and *panchtiktaghrith gugghu*. Case should be postulated by diagnostic findings. Other parameters should be taken to assess before and after changes. The patient was exposed to vigorous treatment modalities, often exhaustive and prolonged inpatient stay were considered as the limitations of the study. In further studies, there is need to validate the findings with deeper insights. Forthcoming studies that integrate symptomatic findings after *procedure* with changes in metabolomic and genomic parameters may facilitates a broader system level understanding and mechanistic insights into these integrative practices that are employed to promote health and well being.

## Conclusion

As in this case report, patient got significant relief, it may be concluded that *Vaman-Virechana* and *panchtiktaghrith gugghu* prove to be effective in the management of Psoriasis with mild arthritis by virtue of its *Tridosha Shamaka* property.

Randomised Clinical Trial needs to be conducted to validate result in larger sample which will generate evidence for support.

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