

Role of Ayurveda in Management of Psoriasis: A Case Study

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Abstract: Psoriasis is an accelerated inflammatory proliferation of the ailing cells of the skin due to defective immune response triggered by uncertain factors. Although the disease was described centuries ago, the precise cause and management is still under-research. In Ayurveda, many herbs are effective, but it needs a multimodal treatment approach due to its multifactorial cause. This case is about Ayurveda treatment in a 40-year-old male patient with plaque psoriasis presented with erythematous plaques on the lateral surface of the legs, right forearm, and lower back. The Auspitz sign and Koebner phenomenon were positive. The treatment protocol was adopted as per Ayurvedic samprapti (pathophysiology) and the patient cured completely without reporting any adverse events after the 5 months of treatment. No recurrence observed even after treatment halted. The patient was directed about pathya-apathya and its importance was revalidated. Photographic documentation was recorded with the proper consent of the patient during successive treatment and regular follow-ups. Ayurveda treatment led to speedy and substantial recovery from a chronic case of psoriasis.

Keywords: Psoriasis, Auspitz sign, Ayurveda, Ek-Kushtha

1. Introduction

Psoriasis is a chronic immune-mediated inflammatory condition mainly affecting the skin and joint. It affects 2% of world population. Males are being affected by psoriasis two times more common than females [1]. It involves scalp, face, trunk, limbs, palms, and soles and various other sites. The diagnosis of psoriasis largely depends on Clinical picture and is confirmed by tissue biopsy. The clinical pattern involves Plaque psoriasis (*Psoriasis vulgaris*), Inverse psoriasis, Guttate psoriasis, Pustular psoriasis, and Erythrodermic psoriasis [2]. Psoriasis produce a great adverse impact on the psychological and social aspects of patient's life due to chronicity, recurrence, and cosmetic disfigurement. In Ayurveda, almost all skin disease can be taken under generalized term "Kushtha". Among 18 types of Kushtha. Psoriasis is a *kshudra kushtha* can be considered as Ekakushtha [3]. Kushtha is produced invariably by the vitiation of the seven factors i.e. 3 Doshas and 4 Dushyas, specific manifestation of symptoms are produced in the way of different types of pain, colour, shape etc. [4]-[5] Psoriasis is correlated with Ekakushtha as clinical feature of Ekakushtha mentioned by Charaka Chikitsa are very much similar with the Psoriasis. (Ekakushtha) which are as follows:

- 1) Aswedanam the lesions of this disease are dry and rough.
- 2) Mahavastum Lesions are found all over the body.
- 3) Matsyashakalopama Well defined raised macules, papules and plaques of erythema found which are covered with silvery scales
- 4) Krishna -Aruna Varna The lesions are raised and erythematous, thick lesion becomes reddish black in colour.[6]

Case report

A 40 year old male patient came to the Kayachikitsa OPD with complain of Reddish silvery plaque with itching, burning sensation on head, right leg, lower back and

bilateral forearm, he was taking antihistaminics for symptomatic relief since 1 year.

2. Clinical Findings

The patient presented with erythematous plaques on the anteriorolaral surface of the Head, right shin bone, Bilateral forearm, and lower back region. The affected skin was found with a variable shade of red color and the surface covered with large silvery scale. The patient was suffering from itching and burning all over the body. At the time of the case presentation, the Auspitz sign and Koebner phenomenon found positive. No signs of psoriatic arthritis and nail bed psoriasis were found.

2.1. General examination

Body temperature (97.6 °F), Pulse (88/min), and Blood Pressure (118/86) were within normal limit.

2.2. Systemic examination

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

3. Diagnostic assessment

All routine blood tests were within a normal range. The patient was not ready for tissue biopsy due to unaffordable cost. Therefore, based on clinical presentation, distribution of the skin damage, and positive Auspitz sign, the case diagnosis was confirmed as plaque psoriasis.

Treatment Plan

Treatment was based on the ayurvedic principles of –

- 1) Nidanparivarjana
- 2) Shodhan
- 3) Shaman

Considering the clinical signs, symptoms & aggravating factors initial shaman treatment with pathay- apathya direction was given to the patient for a month and then

Shodhan treatment viz. Virechan was planned for patient according to bala & kala. After virechan, shaman treatment was continued with Pathya -apathya directions.

Shaman chikitsa before shodhan

Medicine	Dose	Anupana	Route of administration	Duration
<i>1.Aarogyavardhini vati</i>	250mg after meals	Luke warm water	Oral	20 days
<i>a. Haridrakhanda</i>	1TSF BD after meals	Luke warm water	Oral	30 days
<i>b. Kaishore Guggulu</i>	2BD after meals	Luke warm water	Oral	30 days
<i>c. Khadirarishhta</i>	20ml BD after meals	With a cup of lukewarm water	Oral	30 days
<i>d. Mahamarichyadi Tail</i>	5ml		Topical	30 days

Shodhan Karma

Patient was admitted for shodhan karma viz. virechan and following treatment plan was adopted -

- 1) Chitrakadi vati was given 2 tds with lukewarm water for deepan & paachan before snehan for 2 days
- 2) Snehan was started with Panchtikta gugullu ghrita with starting dose of 20ml and increasing as follows for 7 days.

Medicine	Dose	Anupan
Panchtikta gugullu ghrita	20ml OD morning	Lukewarm water
Panchtikta gugullu ghrita	40ml OD morning	Lukewarm water
Panchtikta gugullu ghrita	60ml OD morning	Lukewarm water
Panchtikta gugullu ghrita	80ml OD morning	Lukewarm water
Panchtikta gugullu ghrita	100ml OD morning	Lukewarm water
Panchtikta gugullu ghrita	120ml OD morning	Lukewarm water
Panchtikta gugullu ghrita	140ml OD morning	Lukewarm water

- 3) Virechan was given on third day of snehan completion with Trivritta avaleh 50 gms mixed in lukewarm milk. A total of 20 vegas was observed which is a madhyam shudhi with all the signs of samyak virechan.
- 4) Patient was advised to follow samsarjana karma as per shudhi.

Shaman chikitsa after Shodhan

Medicine	Dose	Anupana	Route of administration	Duration
<i>Panchnimba churna</i>	3gms after meals	Luke warm water	Oral	2 Months
<i>Haridrakhanda</i>	1TSF BD after meals	Luke warm water	Oral	2 Months
<i>Kaishore Guggulu</i>	2BD after meals	Luke warm water	Oral	2 Months
<i>Khadirarishhta</i>	20ml BD after meals	With a cup of lukewarm water	Oral	2 Months
<i>Mahamarichyadi Tail</i>	5ml		Topical	2 Months
<i>Panchtikta ghrita</i>	5 ml	Luke warm water	Oral	15 days

Outcomes & Follow ups

Outcomes were assessed on the basis of PASI score that is Psoriasis Area Severity Score . Patient was treated for a period of around 5 months including shodhan period and

was monitored on follow ups. There was remarkable reduction in PASI score before and after the treatment. It was 4.1 before treatment and 0.3 after the treatment.

Table 3: PASI Score–Psoriasis area severity index

Before treatment

A.1

Plaque characteristics	Lesion scoring criteria	Head	Upper limb	Trunk	Lower limb
1.Erythema	0=none	1	1	1	2
2.Induration	1=slight	0	2	1	1
3.Scaling	2=moderate 3=severe 4=very severe	1	2	1	1
Addition of each of the 3 scores for each body region to give 4 separate sums (A).					
	Lesion score sum A	2	5	3	4

A.2

Percentage area affected	Area score	Head	Upper limb	Trunk	Lower limb
Area Score (B) <i>Degree of involvement as a percentage for each body region affected (score each region with score between 0-6)</i>	0 = 0% 1 = 1% - 9% 2 = 10%-29% 3 = 30%-49% 4 = 50%- 69% 5 = 70%- 89% 6 =90%-100%	1	2	1	1
Multiplication of Lesion Score Sum (A) by Area Score (B), for each body region, to give 4 individual subtotals (C).					
	Subtotals C	2	10	3	4

A.3

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	✂ 0.1	✂ 0.2	✂ 0.3	✂ 0.4
Totals D	0.2	2	0.3	1.6
Addition of each of the scores for each body region to give the final PASI Score.				

PASI Score= 4.1

After treatment

B.1

Plaque characteristics	Lesion score	Head	Upper limb	Trunk	Lower limb
1.Erythema	0=none	0	0	1	0
2.Induration	1=slight	0	0	0	0
3.Scaling	2=moderate	0	0	0	0
	3=severe				
	4=very severe				
Addition of each of the 3 scores for each body region to give 4 separate sums (A).					
	Lesion score sum A	0	0	1	0

B.2

Percentage area affected	Area score	Head	Upper limb	Trunk	Lower limb
Area Score (B)	0 = 0%	0	0	1	0
Degree of involvement as a percentage for each body region affected (score each region with score between 0-6)	1 = 1% - 9%				
	2 = 10%-29% 3 = 30%-49% 4 = 50%- 69% 5 = 70%- 89% 6 =90%-100%				
Multiplication of Lesion Score Sum (A) by Area Score (B), for each body region, to give 4 individual subtotals (C).					
Subtotals C		0	0	1	0

B.3

Multiplication of 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	✂ 0.1	✂ 0.2	✂ 0.3	✂ 0.4
Totals D	0	0	0.3	0
Addition of each of the scores for each body region to give the final PASI Score.				

PASI Score= 0.3



4. Discussion

Psoriasis is an autoimmune disease where genetic and environmental factors have a significant role. Moreover, cytokines, inflammatory cascade, and keratinocytes play an important role in the pathogenesis of psoriasis. As all the kushtha are said to be tridoshaj. In the present case, Patient had scaling (kharta),itching(kandu) which is Vaata, kapha symptoms and erythema, burning, inflammation which also

shows pitta vitiation so here too all the doshas were involved, and Rasadhātu, Raktadhātu, and Mamsadhātu were the Dushyas. The treatment protocol was adopted for Samprapti bheda. It includes shodhan chikitsa, In this case virechan was adopted to normalise the vitiated doshas especially pitta and shaman included Agnidipana (improvement of the biological fire), Aampachana, Rasaprasadana (improvement in the quality of blood), and Raktaprasadana (purification of the blood) were achieved

with the help of all the internal medicines. Thus, in the present case, the strict dietary regimen (Pathya) has been

advised as the mitigating intervention along with Ayurveda medicines.



K. guggulu is a polyherbal preparation. Furthermore, K. guggulu acts as an antiallergic, antibacterial, and blood purifying agent.[7] Therefore, it helps to reduce redness, inflammation and acts as a natural blood cleanser by its pacifying effects on deep sited vitiated doshas of psoriasis.

Khadirarista has recommended for all types of Kushtha. Most of the ingredients of Khadirarista possess anti-psoriatic action. The heartwood decoction of Khadir (*Acacia catechu* Willd.) has since long been used to treat skin ailments including psoriasis in a traditional practice. It helps to purify the blood. It has immunomodulatory action that may activate both cell-mediated as well as humoral immunity. Among various phytoconstituents present in *Acacia catechu*, catechins may contribute to its anti-inflammatory and antioxidant activities. [8] Darvi (*Berberis aristata* DC.) has anti-inflammatory activity. In skin diseases, the aqueous extract of *B. aristata* is found effective internally as well as externally. [9] Bakuchi (*Psoralea corylifolia* Linn.) has also been used for its promising results in various skin ailments. It contains various phytoconstituents such as flavonoids, alkaloids, coumarins, meroterpenes, and essential oils which contribute to its multifaceted pharmacological actions including anti-inflammatory, antioxidant, antipsoriatic, antibacterial, and immunomodulatory activities.[10]

Arogyavardhini Vati has *Kutki* as main ingredient that has anti-pruritic and antioxidant properties and works as *Dhatu Poshaka* (promotes body tissue), hence resolving morbidity at *Dhatu* level.

Itis, *Deepani* (appetiser), *Pachani* (digestive), *Tridoshasham aka* (pacify all doshas), and is indicated in *Kushtha* treatment.

Virechan (medically induced purgation) is one of the Panchkarma procedure which is used in detoxification. Snehana brings all the doshas to alimentary canal (koshtha) from where it is brought out of the body via rectal pathway. It reduces the pro-inflammatory cytokines in body and normalizes the vitiated doshas thus brings internal homeostasis.

Brihatmarichyadi tailam was used for local application which has bakuchi as ingredient. It has various phytochemical which reduces the inflammation and also acts as anti-oxidant and reduces erythema, scaling and inflammation and overall disease activity.

5. Conclusion

In the present case, the treatment protocol was adopted as per Ayurvedic samprapti and the treatment response was observed. Shodhan and shaman treatment with external application has shown significant improvement in signs and symptoms of psoriasis which is evident from reduction in PASI score.

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