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Case Study

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POTENTIAL IMPLICATION OF AYURVEDA IN PSORIASIS WITH SPECIAL REFERENCE TO EKAKUSTHA: A CLINICAL CASE STUDY

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ABSTRACT

Skin is the largest organ of the body which protects the body from the outer environment. It is organ that reflects many internal diseases by changing it's character. Immune response of a human body to the uncertain factors leads to the accelerated inflammatory proliferation of the ailing cells of the skin known as Psoriasis. Although the condition found described many decades ago, the aetiology and treatment look under-researched. In Ayurveda, many herbs have proven efficacy in psoriasis, but the multifaceted aetiology of the disease needs a multimodal treatment approach. We report about Ayurveda treatment in a 29-year-old female patient diagnosed with Plaque Psoriasis presented with erythematous plaques on the anterior surface of the legs, both hands, forearms and back region. 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 during and after the one year of treatment. No recurrence observed even after one year

of the halted treatment. The importance of a wholesome diet as a health promoter is also revalidated. Photographic documentation was recorded with the proper consent of the patient during successive treatment and regular follow-ups. Altogether, multimodal *Ayurveda* treatment led to speedy and substantial recovery from a chronic case of psoriasis.

KEYWORDS: Psoriasis, Auspitz sign, Ayurveda, Kushtha, Herbs, Case report.

INTRODUCTION

Psoriasis is a non-infectious, chronic inflammatory disease of the skin. It is characterized by well-defined erythematous plaques with a silvery-white scale with a predilection for the extensor surface and scalp, and a chronic fluctuating course.^[1] In psoriasis, the main abnormality is increased epidermal proliferation due to excessive multiplication of cells in the basal layers. The transit time of keratinocytes is shortened, and epidermal turnover is reduced to 5-6 days from 28-30 days.^[2] Even though the aetiology is unknown, the factors involved are genetic, biochemical and immunopathological.^[3]

The disease occurs equally both in males and female.^[4] It's prevalence rate ranges between 0.1% to 3%.^[5] Various sites of the body such as scalp, face, trunk, limbs, palms, and soles involve in psoriasis. Plaque psoriasis (*Psoriasis vulgaris*), Inverse psoriasis, Guttate psoriasis, Pustular psoriasis, and Erythrodermic psoriasis are a few of the clinical patterns reported in psoriasis cases.^[6] Diagnosis of the disease is made mainly based on tissue biopsy, distribution of skin damage and clinical symptoms that are.^[7]

- Erythematous sharply defined plaques, covered with silvery-white scales.
- Extensor surfaces primarily involved such as the knees and elbows.
- Koebner's phenomenon is present in the active phase of the disease.
- Wornoff's ring is often present in the healing phase of the disease.
- Auspitz sign and candle grease sign are other classic features of the disease.

Psoriasis is an autoimmune disease that has recurrences and remissions. It is not Completely curable but symptoms can be well Controlled and patients quality of life can be enhanced. The current line of treatment for psoriasis comprises systemic administration of immunomodulatory drugs like methotrexate and topical application of various emollients corticosteroids, tar and vit D analogues, PUVA etc. These drugs are effective in management of disease but have some side effects. Alternative medicine streams also have various treatment modalities for this disease. Which can be used to treat this disease.

In Ayurveda skin diseases have been discussed under the broad heading of "Kushtha". Kushtha has two major division i.e., Mahakushtha' and Kshudrakushtha". Ekakushtha has been enumerated first in the list of Kshudra Kushtha. [8] In Ekakushtha there is dominancy of VaatKapha dosha. The features of Ekakushtha as described by Acharya Charak are Aswedana (loss of sweating), Mahavastu (spread of lesion) and Matsyashaklopam (Silvery

scaling). The Symptoms are much similar with the features of psoriasis such as rashes, dryness, redness, plaque, scaling, spreading all over the body etc. hence we can correlate *Ekakustha* with psoriasis. As Acharyas have described *Sanshodhan* and *Sanshaman* as the treatment of choice in *'Kushtha. Sanshodhan (Panchakarma)* therapy is the key therapy, but *Sanshaman* (local application and internal medicine) also plays a major role in treating the *Kushtha*.

Most of the formulations described in *Kushtha chikitsa* have been efficiently used by the physicians to treat different skin ailments. However, due to the complex pathophysiology, chronic and relapsing nature of psoriasis, the multimodal treatment approach has been adopted covering the *Shodhana chikitsa*, *Shamana chikitsa*, and *Rasayana chikitsa*. In the present case, the multimodal *Ayurveda* treatment approach resulted in early recovery from psoriatic lesions with no recurrence so far.

1. Patient information

A 29-year-old female patient had been diagnosed as plaque psoriasis and was treated by a consulting dermatologist wherefrom the patient was taking allopathic treatment for three years with regular follow-ups. Topical and systemic immunosuppressive therapy was resulted in symptomatic relief during the last treatment. Personal history revealed that the patient's general health was good. All the blood tests (routine tests) were within a normal range. No concomitant illness was found associated. However, due to a recurring pattern caused by the unknown aggravating factors, the patient discontinued allopathic treatment and consulted for *Ayurveda* treatment.

2. Clinical findings

The patient presented with erythematous plaques on the anterior surface of legs, forearm, hands and back region. The affected skin was found with a variable shade of red colour and the surface covered with large silvery scales. 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 (96.6 °F), Pulse (78/min), and Blood Pressure (110/80) were within normal limit.

2.2. Systemic examination

In systemic examination, respiratory and cardiovascular system found normal.

2.3. Asthavidha pariksha

Nadi (pulse) — Pittakaphaja; Mala (stool)— Sandra-Picchila, bowel habit was regular; Mutra (urine) — Prakrita; Jivha (tongue)— Shveta, Sama (coated); Shabda — Prakrita; Sparsha (touch)— Ushna; Drika (vision) — Prakrita; Aakriti — Madhyam (medium built).

2.4. Nidana Panchaka

Nidana

Ahara Hetu

Intake of food mostly containing *Ksheera* (milk), *Dadhi*(curd), *Takra*(butter milk), *Kola*, *Kulattha*, *Masha*, *Atasi*, Intake of food during indigestion, Intake of polluted water.

Vihara Hetu

To do physical exercise and to take sunbath after heavy meals, To perform sexual intercourse during indigestion, To have a regular nap in the day, Withholding of the natural urges, i.e., *Mutra* and *Purisha* Vega, etc., Suppression of the urge of emesis.

Samprapti

Aacharya Charaka mentioned that Vata, Pitta and Kapha - these three dosas get aggravated by particular Nidan sevana and in turn vitiates dhatus that are Tvak, Rakta, Mamsa and Ambu. These seven fold factors are collectively called as Saptako Dravya Sangraha. These seven factors are equally responsible for pathogenesis of all eighteen varieties of Kusthas. The three dosas are simultaneously vitiated in pathogenesis of Kustha. The term saptaka indicates that all seven fold factors are essentially involved in the pathogenesis of all varieties of Kustha. The term dravyasangraha indicates that these seven fold factors are original causative factors of Kustha.

Virudhyaviryasan is depicted as main responsible factor. So dietary contraindication is highlighted. Combined eating of fish and milk is denoted as typical example. Milk and fish both contains madhur rasa which is madhur in vipak and Kledakar. Again, sita guna of milk and usna guna of fish causes Rakta dusti. Kustha is categorized as Rakta Pradosaja vikar. Due to Margabhisyanditva of two contraindicated Panchabhautik guna, special channels concern to skin are obstructed. Obstructions favour the dosa dushya sammurcchana and

production of *Amavisa*. Hence *Tridosa* after *nidan sevana* leads to *dhatu dusti*. *Twak Rakta*, *Mamsa*, *lasika* get vitiated and weak. Hence, they get deviated from their beneficial function towards skin.

According to other *Ayurvedic* scholar^[9] during manifestation of *Kustha* etiological factors of *Kustha* cause aggravation of *Pitta* and *Kapha* which produce *Avarana* in *Vata gati*. Occluded *vata* in turn aggravates more and then combined with other two dosas enters in the *Tiryak sira*. Through *Tiryak sira* it reaches the *Bahya Rogmarga*, i.e., *Tvak*, *Rakta*, *Mamsa*, and *Lasika* and ultimately *dosa dusya sammurchana* takes place. Where dosas get lodged, produce the *mandala*, i.e., lesion.

From the comment of *Bhoja* of 'Sevate Yo Viruddhamajirne Kosthtatha^[10] denotes that the cause of kustha originates from Kostha. Following Bhoja, it could be clarified that Tiryaksira are the macro and microvasculature towards the extremities and periphery of the body. The disease spread to the periphery from central part through the vascular system. Though the manifestation takes place in a localized manner the complete systemic involvement occurs following the dictum of Charak - 'Kevalam Shariram Upatapant.^[11]

Samprapti Ghataka in Ekakustha

Dosik Involvement - Tridosa

Specific involvement of Dosa - Vata Kapha Pravala Eka dosa ulvan

Dusya - Tvak, Rakta, Mamsa, Lasika

Involved Srotas - Rasavaha, Raktavaha, Mamsavaha, Swedavaha

Srotadusti - Vimargagamana, Sanga

Type of Vyadhi - Adibala Pravritta

Vyadhi Prakriti - Chirakari

Roga Marga - Bahya Roga Marga

Sthanasamsraya - Tvak

Vikriti - Rakta Pradusaja Vikar

Sadhya Asadhyatva - Kriechasadhya.

Poorva roopa – Abhyantara daha (feeling of warmth), Kandu (itching) and Mandagni (anorexia);

Roopa: Daha (burning sensation), Kandu, Tvakavaivarnyata (in present case, skin with a variable shade of red colour and the surface covered with large silvery scales.), Balahani (generalized weakness);

Upashaya – *Bahya shita sparsha* and *Abhyanga* (improvement on wet cold sponging and oil application)

Anupashaya – Ushna sparsha (increased symptoms on work in hot and humid climate).

2.5. Diagnostic assessment

All routine blood tests were within a normal range. based on clinical presentation, distribution of the skin damage, and positive Auspitz sign, the case diagnosis was confirmed as plaque psoriasis.

3. Therapeutic interventions

All oral and topical modern medications stopped. In this case, the involvement of *Pitta* and *Kapha Dosha* ascertained by observing the clinical presentation such as *Daha* (burning sensation), *Kandu* (itching), *Raktavarnata* (redness), and the nature of skin lesions. Vitiated *pitta* and *kapha dosha* found involved in the pathological progress. The details of the internal and external medications prescribed have been mentioned in following Table 1.

Day	Treatment
1st -5th	Shodhnarth Snehpan with Mahatiktaka Ghrita (started from 30 ml, 30 ml
day	increased every day till 5th day)
6th day	Abhyang with Jivantyadi Yamak (medicated oil), Sarvang Bashpa Swedan with
	Nimb Patra
7th day	Vaman Karma with Madan phal Churna- 4 gm
8-10th	Samsarjan Karma
day	
11th to	Shodhanarth Sneha pan with Mahatiktaka Ghrita (started from 30 ml, 30 ml
14th day	increased every day till 5th day)
15th day	Abhyang, Swedan
16th day	Abhyang, Swedan
17th day	• Virechana karma were done with following Kalpa Approximate quantity of
	each drug is as follows for preparation of virechak kwath- Trivrutta coarse
	powder (100gm), <i>Triphala</i> coarse powder (100gm), <i>Kutaki</i> powder (10gm) (Final
	dose of Virechan kwath was given maximum of 80 ml according to Koshta and
	Agni of patient ^[12]
18th -	Samsarjan karma
20th day	

- 1. Jivantyadi Yamak (medicated oil) twice a day for topical application for 6 month.
- 2. Rakta Mokshan (Sira Vedh, blood-letting through cubital vein) upto-60 ml monthly for 6 month.
- 3. Shamanarth Snehpan with Mahatiktaka ghrita (medicated ghee) 10 ml once daily on an empty stomach at early morning with Warm water for 6 month.

21st day to month

- 4. Mahamanjisthadi Kwath' (Herbal decoction) 20 mL of kwath, twice daily on an empty stomach with 50 mL of lukewarm water for 6 Month.
- 5. Kaishor Guggulu 1 gm (2 tablets) twice daily, after meal with Lukewarm water for 6 Month.
- 6. Gandhak Rasayan -250 mg (2 tablets) twice daily, after breakfast with water for 6 Month.
- 7. Erand Bhrishta Haritaki (250 mg) 2-tab HS with luke warm water.
- 8. strict dietary plan- Restricted use of salt, sour food items, curd, old butter, butter milk, meat and fish, overeating etc.

4. Timeline

In the present case, all the treatment was continued for 6 month. *Pathyahara* (A strict dietary plan) continued for one year after the end of active treatment to check the recurrence of psoriasis.

5. Follow up and outcomes

Regular Follow-ups was taken with patient. The psoriatic lesions with all its signs and symptoms cured. No adverse events witnessed during the treatment. Photographs of affected areas before and after the treatment are shown in Fig. 1. The patient kept only on a strict dietary regimen for one year and no recurrence observed.





6. DISCUSSION

In the present case, *Pitta*, *Kapha*, and *Rakta* were the *Doshas*, and *Rasadhatu*, *Raktadhatu*, and *Mamsadhatu* were the *Dushyas*. *Dosha-dushya samurcchana* (pathological progress) was taken place due to the circulation of vitiated *Doshas* and their *Sthanasamshraya* (site of pathological changes) at *Tvaka* (skin) with the clinical presentation of *Vyadhilakshnanas* (signs and symptoms of psoriasis). The treatment protocol was adopted for *Samprapti bhedana* (to counteract the pathophysiology) where *Pitta-kaphahara*, *Vataraktahara*, and *Rasayana* with *Shodhana* and *Kushthaghna aushadhiyogas* (medicines) were preferred. Internal medicine was prescribed after *Shodhana* for *Seshadosha Nirharana* and *Ras-Raktaprasadana*.

According to Acharya Charka (ch.su.16/20) Vyadhi can reoccur if treated with Shaman Chikitsa but if it is treated with Shodhana Chikitsa, reoccurrence of Vyadhi occurs less. As we have seen in the present case that Pitta and Kapha Dosha mainly involved in Samprapti. Also, this Vyadhi Vyadhi is mainly Santarpanajanya causing Avarodha in cellular level. Vamana, Virechana and Raktamokshan are main Shodhan Chikitsa among Panchkarma. Shodhana helps to remove Avarodha, improves microcellular metabolism within the body. Also, medicine given after Shodhana get easily absorbed to give appropriate effect.

Abhyantara Snehapana with Mahatiktaka Ghrita causes molecular splitting (Dosha Vilayana). Swedan followed by Snehapana helps to release the Dosha out of the cell(Dosha Bhedana) i.e., Utkleshana of Dosha. Vamana, Virechak drugs, after entering in Amashaya

(stomach) by their Ushna, Teekshna, Sukshma, Vyavayee, Vikashi properties and Prabhava move to Hridaya. From there, through Dasha Dhamani (Vyavayee), reaches to macro and micro-channels of the body (Anutva property) and Act over the vitiated complexes in the body i.e., Utkleshit Dosha. With 'Agneya property liquefy the complexes (Vishyandana). Liquefied matter then glides through various unctuous channels from Shakha to kostha (Pravana bhava of sukshma guna) and finally helps to remove the Kosthagata dosha through Urdhva and Adhomarga respectively.

Sansarjana karma is given for Agni Sandukshana. Hampered Agni is one of the initiating factor for many disease. Vamana, Virechana and Raktamokshana removes Utkleshit Kapha-Pitta. Does Srotovishodhana and Agni sandukshana. Thus, helps removes the root cause of disease and corrects metabolism at jathargni and Dhatvagni level.

Mode of action of Raktamokshan

In condition like *Vata Prakopa* due to *Kapha* and *Pitta Avarana*, *Raktamokshan* by *Siravedh* helps to remove the *Avarana* of *Kapha-Pitta Dosha*. Giving way for *Anuloma Gati* of *vitiated Vata*, that indirectly cures the *Vatika* symptoms along with symptoms produced by *Kapha-Pitta dosha*.

Mode of action of Mahamanjisthadi Kwatha

Mahamanjisthadi Kwatha is enriched with Tikta rasa (bitter) dravyas that help in the Rasadhatu and Raktadhatu prasadana by pacifying vitiated kapha and pitta doshas. It has kushthaghna (corrects skin ailments) properties. Sha. Madhyamkhanda 2/137-142.

Mode of action of Kaishor Guggulu

Kaishor guggulu is a polyherbal preparation mainly indicated in *Vatarakta*. It reduces inflammation and pain associated with *Vatarakta* by purifying blood. It also acts as an antiallergic, antibacterial, and blood purifying agent. 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.

Mode of action of Gandhak Rasayana

Gandhak (sulfur) in Ayurveda has Kushthaghna property. It's Garavishahar (anti-poisonous) and Rasayana (rejuvenation) properties help to cure and correct the causes of skin diseases. According to modern science, sulfur possesses an anti-inflammatory and anti-oxidant

property which plays an important role in the treatment of autoimmune diseases such as psoriasis. It is known for its *Kushthaghna*, *Kledaghna*, *Raktaprasadana*, and *Rasayana* properties. In *Gandhak rasayana*, purified Sulfur has been treated with different medicinal herbs to improve its pharmacological actions to many folds.

Why Erand Bhrishta Haritaki?

For patients where *Bahu Dosh* involvement is seen, *Nitya Sodhan* should be done. *Erand Bhrishta Haritaki* acts as Mridu Virechana and dosha *Anulomana*.

Mode of action of Jivantyadi Yamak

In the present case, Jivantyadi Yamak was prescribed for external use. In Jivantyadi Yamak, purified cow ghee and Neen oil has processed with Jivanti (Leptadenia Reticulate.), Manjishta (Rubia cordifolia Linn.), and Daruharidra (Berberis Aristata.), Kampillak (Mallotus Philippinensis), Sudha Arka (Calotropis Procera). Jivantyadi Yamak carries all the active pharmaceutical ingredients from these herbs and helps to cure psoriasis by enhancing their permeation across the skin. It retards hyperkeratinization, silvery scales, inflammatory responses, reduce exfoliation, and discoloration of the skin. It also prevents itching and formation of scales and sores.

7. CONCLUSION

Thus, by using basic principle of *Ayurveda*, the patient having psoriasis was successfully treated. No recurrence reported after the end of active treatment in next one year. The importance of a wholesome diet as a health promoter is also revalidated. The external and internal medications of *Ayurveda* helps to correct the complex pathophysiology of psoriasis like chronic diseases. This treatment is safe and effective in management of Psoriasis with special reference to *Ekakustha*.

8. Informed consent

Consent of the patient was obtained for the photographs and before reporting the case report for publication.

9. Further Scope

The present study was conducted with limited facilities and in single patient. A study of larger group of patients may help to comprehend the mode of action of the ayurvedic treatment.

Conflict of interest

None.

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