Case Study

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AYURVEDIC INTERVENTION IN THE MANAGEMENT OF CHRONIC PLAQUE PSORIASIS THROUGH ANTARPARIMARJANA (SHAMANA AUSHADHI) AND BAHIRPARIMARJANA (UDGHARSHANA AND ABHYANGA): A CASE STUDY

Sudip Lahiri [1]*, Shumaila Afreen [1], Tapas Bhaduri [2]

[1] Final year P.G Scholar, Department of Kayachikitsa, Institute of Post Graduate Ayurvedic Education and Research at S.V.S.P. Hospital, Kolkata, West Bengal, India

[2] Reader and HOD, Department of Kayachikitsa, Institute of Post Graduate Ayurvedic Education and Research at S.V.S.P. Hospital, Kolkata, West Bengal, India

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***Corresponding author**
E-mail: sudiplahiri239@gmail.com

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ABSTRACT

Considered as the mirror of health, the skin holds utmost importance in navigating the physical, psychological, and social aspects of an individual. Any pathological changes involving the skin can substantially impair daily functioning and overall quality of life. Psoriasis is one such dermatological disorder frequently encountered in clinical practice. The conventional medications often have limitations, including side effects and a high relapse rate, highlighting the need for alternative therapeutic strategies. Ayurveda provides a personalized approach, taking into account the individual's Prakriti and varying degrees of Vikriti. This case study represents a 38-year-old non-diabetic, non-hypertensive male previously diagnosed with chronic plaque psoriasis, approaching the Kayachikitsa O.P.D. of I.P.G.A.E. & R. at S.V.S.P., Kolkata, presently with a 6-month history of thick, erythematous, scaly plaques accompanied by intense itching and burning sensations localized to the anterior aspects of both lower legs. Based on the clinical features, a diagnosis of Kitibha was made and treated by antarparimarjana (shamana aushadhi) and bahirparimarjana (udgharshana and abhyanga) along with dietary and regimental modifications for 3 months. A marked improvement was noted in the appearance of lesions, accompanied by complete remission of itching and burning sensation, a lowering of the PASI score, and an improvement in the ORIDL scale. The findings of this case study highlight the efficacy, applicability, and relevancy of the principles of Ayurveda in the management of chronic plaque psoriasis.

Keywords: Chronic plaque psoriasis, Kitibha Kushtha, Antarparimarjana, Bahirparimarjana, Shamana Aushadhi, Udgharshana

INTRODUCTION

Chronic plaque psoriasis, the most prevalent form of psoriasis[1], is an immune-mediated, inflammatory, proliferative dermatological disorder characterized by sharply demarcated, erythematous, indurated plaques covered with silvery scales[2,3.] The common sites affected include the extensor surfaces, particularly the elbows and knees, as well as the lower back.[4] Worldwide, psoriasis affects a staggering 125 million individuals, representing approximately 2-3% of the global population[5]. Both males and females are equally affected[3]. The histopathological changes include keratinocyte hyperproliferation and abnormal differentiation, resulting in epidermal thickening and rapid turnover of the stratum corneum[6]. Although the precise pathophysiology is yet to be fully understood, the interplay between T cells, APCs (antigen-presenting cells), and signaling molecules like cytokines, triggered by genetic (PSORS 1-9 genes) and environmental factors (physical trauma, infections, and drugs), is integral to the pathogenesis of this disease[7]. Psoriasis can profoundly impair self-perception, social relationships, psychological well-being, and overall quality of life. The conventional management options include topical (emollients, dithranol, tazarotene, etc.) and systemic (methotrexate, acitretin, cyclosporine, etc.) agents[8]. However, these approaches often yield unsatisfactory results with side effects and a high relapse rate upon withdrawal of medications.

In Ayurveda, dermatological disorders are incorporated under Kushtha Roga, which is further subdivided into Sapta Maha Kushtha (7 types of major dermatological ailments) and Ekadasha Kshudra Kushtha (11 types of minor dermatological ailments)[9], with each type exhibiting a distinct prototype of lesions. Kushtha typically involves an imbalance of all three doshas (Vata, Pitta, and Kapha) impairing tvaka (skin), rakta dhatu (blood tissue), mamsa dhatu (muscle tissue), and ambu (watery elements). These seven entities are collectively known as sapta dravya samgraha[10]. Etiological factors include viruddha anna sevana (intake of mutually contradictory foods), vega vidharana (suppression of natural urges), particularly chardi (vomiting), and divasvapna (sleeping during the daytime), among others[11].

Kitibha is a type of Kshudra Kustha, referenced across all three texts of Brihattrayi (three foundational texts of Ayurveda). According to Acarya Charaka[12] and Vagbhata[13], the predominant dosha in Kitibha Kushtha is Vata-Kapha, whereas Acarya Sushruta attributed it to Pitta dosha[14].

The Rupa (clinical features) of Kitibha Kushtha according to Brihattrayi are given in the Table 1.

Table 1: Rupa (clinical features) of Kitibha Kushtha according to Brihattrayi

Rupa (Clinical features)	C.S.[15]	S.S.[16]	A.H.[17]
Kina Khara Sparsha (rough in touch like a scar tissue)	+	-	+
Parusha (hard)	+	-	+
Ruksha (Dry)	-	-	+
Ghana (thick)	-	+	-
Vritta (round)	-	+	-
Snigdha (unctuous)	-	+	-
Sravi (exudative)	-	+	-
Shyava Varna (greyish-black discoloration)	+	-	-
Krishna/ Asita Varna (blackish discoloration)	-	+	+
Kandu (itching)	-	+ Ugra Kandu (intense itching)	+

C.S: Caraka Samhita; S.S: Sushruta Samhita; A.H: Ashtanga Hridaya

MATERIALS AND METHODS

Patient Information: A 38-year-old male, previously diagnosed with chronic plaque psoriasis, approached the Kayachikitsa outpatient department of I.P.G.A.E. & R. at S.V.S.P., Kolkata, with a 6-month history of thick, erythematous, scaly plaques, accompanied by intense itching and burning sensations localized to the anterior aspects of both lower legs. He had experienced remission and relapse of lesions on several parts of the body over the last 5 years. However, for the past 6 months, the lesions had been localized to the anterior aspects of both lower legs. He had taken both oral and topical allopathic agents but had achieved no significant relief. Associated complaints included disturbed sleep and irregular, constipated bowel habits. Neither a relevant past history nor a family history was found, and no aggravating or relieving factors were observed.

Other Information
OPD Registration No.: 2400001350
Religion: Hinduism
Occupation: Carpenter
Educational Status: Higher Secondary
Socio-economic Status: Lower class
Marital Status: Married
Habitat: Rural

Personal History
Appetite: Moderate
Sleep: Disturbed
Bowel habit: Irregular, constipated
Bladder movement: Normal
Addiction: No such

Clinical Findings
Relevant Systemic Examination Findings: Examination of the skin revealed sharply demarcated, erythematous, indurated plaques, covered with silvery scales on the anterior aspects of both lower legs. Repeated scratching due to severe itching results in the thickening of the patches.

General Examination
Mental State: Anxious
Pallor: Absent
Icterus: Absent
Clubbing: Absent
Cyanosis: Absent
Oedema: Absent
Lymphadenopathy: Absent
Gait: Normal
Pulse Rate: 76 BPM
Respiratory Rate: 18 /min
Blood Pressure: 120/78 mmHg
Temperature: 98.6 °F
Body Mass Index (BMI): 22

Systemic Examination
Central Nervous System: Conscious, well oriented to date, place & time
Cardiovascular System: S1 & S2 audible
Respiratory System: AEBE
Gastrointestinal System: Soft, non-tender, no organomegaly detected
Urogenital System: NAD

Ashtavidha Pariksha
Nadi (Pulse): Vata-Pitta
Mutra (Bladder movement): Prakrita (Normal)
Mala (Bowel habit): Krura (Constipated)
Jihva (Tongue): Sama (Coated)
Shabda (Voice and speech): Prakrita (Normal)
Sparsha (Touch, skin, tactile sensation): Ruksha (Dry) and Khara (Rough)
Drik (Eyes and vision): Prakrita (Normal)
Akriti (Built): Madhyam (Moderate)

Dashavidha Pariksha
Prakriti: Vata-Pitta
Vikriti: Tridoshaja
Sara: Tvakasara
Samhanana: Madhyam (Moderate)
Pramana: Madhyam (Moderate)
Sattva: Avara (Inferior)
Satmya: Madhyam (Moderate)
Ahara Shakti: Madhyam (Moderate)
Vyama Shakti: Madhyam (Moderate)
Vayah: Madhyam (Middle aged)

Diagnostic Assessment
In accordance with the morphology of the lesion, the patient was diagnosed with chronic plaque psoriasis (CPP).
From an Ayurvedic perspective, based on the similarities in clinical presentation of kina khara sparsha (rough in touch like a scar tissue), parusha (hard), ghana (thick), and ugra kandu (intense itching), a diagnosis of Kitibha was made. The involvement of tridosha was determined.

Samprapti Ghataka
Dosha: Vata-Kapha Pradhana Tridosha
Dushya (~affected tissue elements): Tvaka (skin), Rakta (blood tissue), Mamsa (muscle tissue), Ambu (watery elements)
Agni (~digestive/ metabolic fire): Jatharagni and Dhatvagni Mandya (diminution of digestive and metabolic fire)
Srotas (~channels of circulation): Rasavaha, Raktavaha, Mamsavaha, Svedabaha (~channels of circulation of nutrient fluids, blood tissue, muscle tissue, sweat)

Srotadushti (~type of vitiation of channels of circulation): Sanga (~obstructive)
Udbhav Sthana (site of origination): Amashaya (~stomach)
Adhisthana (site of manifestation): Tvaka (skin)
Roga Marga (~pathway of the disease): Bahya (~exterior)
Roga Svabhava (nature of the disease): Chirakari (~chronic)
Sadhyasadhyatya (prognosis): Kriccha Sadhya (difficult to cure)

Therapeutic Assessment Parameters: The treatment outcome was evaluated through visual documentation, symptom scoring using the scoring method of PARGOTRA *et al.,* 2011, and Psoriasis Area and Severity Index (PASI) scoring[18]. The impact on daily living was assessed through the Outcome Related to Impact on Daily Living (ORIDL) scale[19].

Ethical Consideration: The case study was conducted as per ICMR National Ethical Guidelines for Biomedical and Health Research Involving Human Participants.

Informed Consent: Informed consent was obtained from the patient.

Therapeutic Interventions: After a thorough assessment of dosha, dushya (~affected tissue elements), kostha (~nature of the bowel), rogi bala (strength of the patient), and roga bala (strength of the disease), the patient was advised to undergo Ayurvedic treatment comprising shamana aushadhi (palliative medications) as antarparimarjana (internal therapeutics) and udgharshana (powder massage) with abhyanga (oil massage) as bahirparimarjana (external therapeutics) for a period of 3 months. The details are mentioned in Table 2.

Table 2: Therapeutic Interventions

Antarparimarjana (Shamana Aushadhi)
First 45 Days
1. Aragvadhadi Kashaya – 15 ml BD before tiffin
2. Panchatikta Ghrita Guggulu – 500 mg BDPC with Luke warm water
3. Gandhaka Rasayana – 250 mg BDPC with Luke warm water
4. Arogyavardhani Vati – 250 mg BDPC with Luke warm water
5. Haritaki Churna – 3 gm ODHS with Luke warm water
Next 45 Days
Cont. 1,2,3,5; Omit 4.
4. Mahatikta Ghrita – 10 ml. BD before meal with Lukewarm water
Bahirparimarjana (Udgharshana and Abhyanga)
Udgharshana (powder massage) with Siddhartaka Snana Churna, followed by Abhyanga (oil massage) of Chalmogra Taila twice a day.

Dietary and Regimental Modifications: avoidance of viruddha ahara (mutually contradictory food articles), amla dravya (sour items), dadhi (curd), guda (jaggery), dugdha (milk and milk products), divasvapna (sleeping during the daytime), and vega dharana (suppression of natural urges) is recommended.

RESULTS

Follow-up and Outcomes: Therapeutic outcomes were assessed at the midpoint and endpoint of the treatment duration. Sleep was disturbed due to itching, which improved with remission of itching. The patient was also relieved of constipation. Even after the completion of the treatment, the patient was advised to observe dietary and regimental restrictions.

Figure 1: Effect of therapeutics on the lesion of left leg

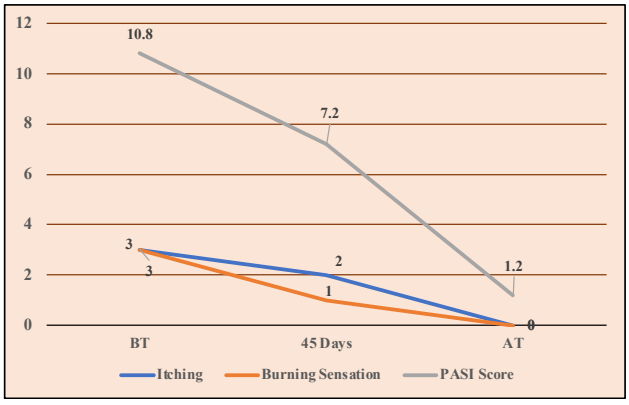
Figure 2: Effect of therapeutics on the lesion of right leg

Table 3: Effect of therapeutics on itching, burning sensation and PASI score

Symptoms	Baseline	Midpoint	Endpoint
Itching	3	2	0
Burning sensation	3	1	0
PASI score	10.8	7.2	1.2

Table 4: Changes in ORIDL scale

Questionnaire	Midpoint	Endpoint
The main complaint for which you came for treatment	+1	+3
Your overall coping with the problem	+1	+3
Your overall well-being	+1	+3



Graph 1: Effect of therapeutics on itching, burning sensation and PASI score.

DISCUSSION

The pattern of remission and relapse in the present case suggests ongoing exposure to etiological factors, as confirmed through a detailed history taking. The severe itching prompted scratching, which, in turn, caused further thickening of the lesions.

In Ayurveda, personalized multimodal therapeutic approaches are advised based on the nature of the disease.

Nidana parivarjana (avoidance of etiological factors) constitutes the first line of treatment for all diseases[20]. Hence, foremost, the patient was advised to modify the faulty dietary and regimental habits and continue observing them even after completion of the treatment.

Shamana aushadhis adopted in the present case possess properties such as Kushthagna (~skin disorders alleviating), Kandughna (~antipruritic), Krimighna (~antimicrobial), Raktashodhaka (~blood purifying), Deepana (~appetizer), Ama Pachana (~digestive), Rasayana (~rejuvenator), and Vata Anulomana (~facilitating downward movement of Vata), among others. These properties may have synergistically broken the pathogenic pathway and restored the balance of the Tridoshas.

The preponderance of tikta rasa (bitter taste) in Aragvadhadhi Kashaya, Panchatika Ghrita Guggulu, Arogyavardhini Vati, and Mahatikta Ghrita exhibits Krimighna, Daha prashamana (~burning sensation alleviating), Kandughna, Kushthaghna, and Tvaka-Mamsa Sthirikara (~ providing firmness to skin and muscle tissues) properties[21].

Arogyavardhini Vati[22] has Katuki as a main ingredient, which, owing to its bhedana (~excretion promoting) property[23], helps eliminate excess Pitta, Kapha, and mala (excreta), thereby clearing obstructed srotas (~channels of circulation) and promoting their normal function.

The constituents of Panchatikta Ghrita Guggulu[24] collectively possess a range of therapeutic properties, including tridosha shamana (alleviating tridosha), deepana, pachana, sroto shodhana (~cleansing of the channels of circulation), Rakta shodhana, daha prashamana, ropana (~healing), sandhanakara (~union-promoting), and rasayana, among others.

Gandhaka Rasayana[25] has Tridoshahara, Kushthagna, Kledaghna (~moisture decreasing), Amapachana, Rakta Prasadana, etc. properties.

Sarpipana (internal administration of medicated ghee) is indicated in Kushtha predominated by Vata dosha[26]. Mahatikta Ghrita[27] is renowned for its extraordinary therapeutic efficacy, effectively treating several serious ailments that have resisted treatment from numerous other remedies.

All these medications have been advocated as vyadhi pratyanik chikitsa (anti-disease therapy).

Haritaki Churna is an excellent Vata anulomaka[28], facilitating proper evacuation of stool and relieving constipation. Moreover, purisha (stool) is responsible for the dharana (sustenance) of agni (~digestive/metabolic fire)[29], the imbalance of which is the root cause of all diseases.

Topically, Udgharshana is advised with Siddhartaka Snana Churna, followed by Abhyanga with Chalmogra Taila.

In the classics, the manoeuvre of Udgharshana is stated to widen the siramukha (~opening of blood vessels) and stimulate tvakastha agni (bhrajaka pitta)[30], with the latter performing the function of absorption and metabolism of medicaments applied topically through abhyanga, parisheka (~sprinkling), avagahana (~bath), alepana (~anointment), etc[31].

Siddhartaka Snana Churna[32] is indicated in Tvakadosha, Kushtha, Shopha, and Panduroga and can be administered through Vamana (~therapeutic emesis), Virechana (~therapeutic purgation), or Udgharshana. It is constituted of Musta, Madanphala, Triphala, Karanja, Aragvadha, Kalinga, Yava, Darvi, and Saptaparna. These ingredients collectively possess properties like Kushthagna, Krimighna, and Rakta Shodhana, among others.

The snigdha guna of Chalmogra Taila used in the Abhyanga induces mardavata (softness)[33] by counteracting the rukshatva (dryness), kharatva (roughness), and parushatva (hardness) of the lesions. Having Kandughna, Kushthaghna, Krimighna, and Rakta shodhana properties[34], it disrupts the pathogenic pathway and restores normalcy to the skin.

Udgharshana with Abhyanga therapeutically exfoliated the thickened scales, healed the patches, and maintained the moisture of the skin.

The internal and external medications show antibacterial, antimicrobial, antiparasitic, anti-inflammatory, and antioxidant properties, which may have contributed to the improvements in the management of chronic plaque psoriasis.

CONCLUSION

Chronic Plaque Psoriasis remains difficult to manage due to the unpredictable pattern of remission and relapse. The present study employed a multimodal approach, combining shamana aushadhi to bring about the equilibrium of doshas internally and udgharshana with abhyanga to therapeutically exfoliate the thickened scaly lesions and restore the normalcy of tvakadi dhatus. The marked improvement in the appearance of lesions, accompanied by the complete remission of itching and burning sensation, a lowering of the PASI score, and an improvement in the ORIDL scale, highlights the potential of Ayurvedic treatment modalities as a safe and effective option for the management of chronic plaque psoriasis. No adverse drug reaction (ADR) was noted during or after the treatment. Further research could be undertaken to investigate the efficacy of these modalities in larger, randomized controlled trials.

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