

Lichen Planus Management with Panchakarma: A Case Study

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Abstract: **Introduction:** Lichen planus is a chronic inflammatory and immune-mediated dermatosis. The researchers theorize that T-cell immune responses could be impaired, but the cause remains unclear. Typically, the disease shows up in ankles, lower back, and wrists with complaints of shiny, itchy bumps with violaceous color. It is relatively rare, with a prevalence of 0.2–1% in adults. In Ayurveda, this condition is correlated with *Kushtha* (dermatological inflammatory conditions). **Case report:** A 27-year-old woman presented with pruritic lesions across her hands, arms, legs, and ankles that had persisted for ten years and had not improved with allopathic medicines. She didn't have any pertinent family or medical history. Medical examination found several itchy, violaceous color papules. **Results:** After receiving *Shodhana* therapy (purification of physical toxins) which are *Virechana* (Purgation), *Basti* (Enema), and *Raktamokshana* (Leech Therapy), the patient received *Shamana* therapy (pacificatory therapy), leads to reduction in the intensity of itching and visible improvement in the size, number and overall appearance of papular lesions. **Discussion:** This case demonstrates how *Shodhana Chikitsa* (detoxification treatment) works in concert with *Shamana Chikitsa* (pacification treatment) to remove vitiated *doshas* (humors) while enhancing the immune system and providing supportive care. **Conclusion:** Ayurvedic treatments are effective in treating Cutaneous lichen planus, although more research with bigger sample sizes is necessary.

Keywords: Lichen Planus, *Shodhana* (detoxification), *Kushtha* (dermatological inflammatory conditions), *Shamana* (pacification).

Introduction

Lichen planus¹ (LIE-kun PLAY-nus) is a rare chronic autoimmune disease involving skin, nails, hairs, mouth, and genitals. On the skin, lichen planus often appears as purple, itchy, flat bumps that develop over several weeks. In the mouth and genital mucosa, lichen planus forms lacy white patches, sometimes with painful sores. It is an inappropriate T-cell-mediated immune response of unknown cause resulting in an autoimmune reaction where the body's immune system attacks its own cells. Not contagious, it severely impacts a patient's quality of life due to its pruritic nature. The prevalence rate of cutaneous lichen planus in adults ranges from 0.2% to 1.0%. The condition is challenging to treat with conventional medicine since it only gives symptomatic relief and is predisposed to long-term corticosteroids and immunosuppressive drugs which primarily provide symptomatic relief rather than addressing the root cause. In *Ayurveda*, this condition correlates with "*Kushtha*"²

(dermatological inflammatory conditions). Ayurvedic panchakarma therapies³ are focused on healing through *Shodhana* (purification of physical toxins) and *Shamana* (pacification of humors). These therapies restore balance to the body's *doshas* (humors viz *Vata*, *Pitta*, and *Kapha*), strengthen the immune system, and rejuvenate damaged tissues. The various herbs chosen for this case are proven to act in various dermatological and immunological conditions. The treatment protocol was determined as per the traditional *Ayurveda* system starting from *Deepana* (Increasing the digestive fire) to *Shamana* (pacification of humors). The chosen therapies and herbs detoxify the body, balance *doshas* (humors), reduce inflammation, and enhance the immune response for overall healing. *Deepana* and *Pachana* (digestive therapy) increase digestive fire and clear *ama* (toxins), while *Chitrakadi Vati* and *EBH* aid in digestion and regulate the bowels. *Snehapana* (oleation therapy), using *Mahatiktaka Ghrita* (clarified butter),

loosens toxins and has anti-inflammatory properties. *Abhyanga* (body massage) with *Ksheerabala Taila* (oil) nourishes skin, muscles, and joints, alleviates *Vata* humor, and mobilizes toxins. *Swedana* (sudation therapy) with *Dashamula Kwatha* (decoction) induces sweating to detoxify the skin and balance humors. *Virechana* (purgation), using *Ichhabedi Rasa*, effectively cleanses the gastrointestinal tract, removes excess *Pitta* humor, and reduces inflammation. Leech therapy removes vitiated *Pitta* and *Rakta* humors, reduces inflammation, and promotes healing. *Yoga Basti* (enema), including *Anuvasana Basti* (oil enema) and *Niruha Basti* (decoction enema), normalizes *Vata* humor disturbances, nourishes tissues, and removes deep-seated toxins. Herbal formulations like *Arogyavardhini Vati*, *Haridrakhanda*, Heamoclean Syrup, and 777 Oil, further detoxify, reduce inflammation, and improve skin health through their anti-inflammatory, antioxidant, immunomodulatory, and blood-purifying properties. This treatment collectively addresses the root cause of lichen planus by detoxifying, balancing humors, and enhancing overall health. This case report attempts to provide a scientific rationale for using Ayurvedic interventions in managing chronic autoimmune conditions. The success of this case suggests the potential for integrating alternatives or adjunctive modalities alongside conventional treatments. Publishing this report will contribute to the evidence supporting *Ayurveda's* efficacy in managing autoimmune skin disorders. This, thereby creates momentum for further research as well as larger clinical trials.

Case Report

A 27-year-old lady, of Indian origin, was diagnosed at the age of 17 years with Cutaneous lichen planus. Her lesions were severely pruritic in the last 10 years and initiated from her ankles and then progressed to her legs, hands, and forearms. The

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major medical complaint was the presence of itching and violaceous color lesions on her lower extremities. She was under allopathic treatment for a decade, which provided her with only temporary symptomatic relief, adding to her psychosocial stress. So, she opted for Ayurvedic intervention. Informed consent was taken before treatment. The patient has no past medical, psychosocial, or family history, comorbidities, or significant systemic conditions reported. The family members of the patient do not report any autoimmune or dermatological conditions.

Physical examination revealed several violaceous color papules on the patient's ankles, legs, forearms, and hands. These were intensely itchy and shiny. The lesions were found to be most concentrated on the ankles (Figure 1). The examination findings for oral mucosa, hair, and nails showed no abnormalities. The diagnosis was established through clinical examination as Cutaneous Lichen Planus. However, the confirmatory biopsy test could not be performed as the patient was not cooperative.

Before Treatment



Figure (1): The pre-treatment images demonstrate bilateral involvement of the lower extremities characterized by multiple irregularly distributed hyperpigmented papules accompanied by areas of scarring and atrophic changes.

Table (1): Previous Medications.

Sr. No.	Name	Type	Dose	Duration
1.	Tab. Levocetirizine dihydrochloride 5 mg	Antihistamine	OD (Night)	These medicines were administered in different time periods over last 10 years.
2.	Tab. Levocetirizine dihydrochloride 5 mg + Montelukast 10 mg	Antihistamine + leukotriene receptor antagonist (LTRAs)	OD (Night)	
3.	Tab. Hydroxyzine 25 mg	Antihistamine	OD (Night)	
4.	Tab. Methylprednisolone 8 mg	Corticosteroid	OD (Morning)	
5.	Tab. Dapsone 25 mg	Antibiotic	OD (Night)	
6.	Tab. Deflazacort 6 mg	Corticosteroid	OD (Night)	
7.	Tab. Omnacortil 30 mg	Corticosteroid	Weekly once (Morning)	
8.	Tab. Cyclosporin 50 mg	Immunosuppressants	TDS	
9.	Inj. Triamcinolone acetonide 40 mg/ml	Corticosteroid	Weekly once	
10.	Mometasone furoate 0.1% cream	Corticosteroid	Twice a day for LA	
11.	Betamethasone 0.05% + Zinc sulfate 0.5% cream	Corticosteroid	Twice a day for LA	
12.	Clobetasol 0.05% cream	Corticosteroid	Twice a day for LA	

Ashtavidha Pariksha⁴ (Eight Diagnostic Tools of Ayurveda)

- Nadi* (pulse) – 72/min; *Pittapradhana* (indicates the pulse is of more *pitta* humor)
- Mala* (stool) – *Vibandha* (constipation); 1 time/2 days
- Mutra* (urine) – 6-7 times/day
- Jivha* (tongue) – *Sama* (white tongue which can be triggered by gastric problems)
- Sparsha* (touch) – *Anushnashita* (normal temperature on touch)
- Shabda* (speech) – *Samyaka* (normal)
- Drik* (eyes) – *Samanya* (normal)
- Akruti (built) – Thin

Therapeutic Interventions

Shodhana Therapy (Detoxification Therapy):

- Deepana and Pachana⁵ (Digestive Therapy):** 0 to 7 days
 - Tab *Chitrakadi Vati* – 2 tabs twice a day before food
 - Tab *Eranda Bhrushta Haritaki* (EBH) – 2 tabs HS with Lukewarm water.
- Snehapana⁶ (oleation Therapy):** 1 to 5 days with *Mahatiktaka Ghrita* (clarified butter)

Table (2): Quantity of *Ghrita* (Clarified butter) in *Snehapana* (Oleation Therapy)

Sr. No	Days	Quantity of <i>Ghrita</i> (clarified butter) (in ml)
1	Day 1	30
2	Day 2	60
3	Day 3	90
4	Day 4	120
5	Day 5	150

- Abhyanga⁷ (Massage Therapy) And Swedana⁸ (Sudation Therapy):** 1 to 5 days
- Sarvanga Abhyanga** (Body massage) with *Ksheerabala Taila* (Oil) followed by *Nadi Sweda* (Sudation) with *Dashamula Kwatha* (Decoction).
- Virechana⁹(Purgation):** On the 7th day with *Ichchabhedi Rasa¹⁰* – 2 tabs in the morning on an empty stomach.

Table (3): Observation of Stool during *Virechana* (Purgation Therapy).

Sr. No	No. of Vega (Motions)	Stool Observation
1	1	Yellow
2	2	Yellow
3	3	Watery Yellow
4	4	Watery Yellow
5	5	Blackish Watery
6	6	Blackish Watery
7	7	Watery Yellow
8	8	Watery Yellow
9	9	Watery Yellow
10	10	Watery Yellow
11	11	Watery Dark Yellow
12	12	Watery Black

Sr. No	No. of Vega (Motions)	Stool Observation
13	13	Watery Yellow
14	14	Watery Yellow
15	15	Watery

– **Samsarjana Krama¹¹** (Graduated dietetic regimen): 8th to 10th day.

Table (4): Diet Plan.

Sr. No	Day	Lunch	Dinner
1	8 th	Moong Dal Pani (Green Gram lentil water)	Khichadi (Pie)
2	9 th	Khichadi (Pie)	½ Chapati (unleavened flat bread) and Sabji (boiled vegetables)
3	10 th	1 Chapati (unleavened flat bread) and Sabji (boiled vegetables)	Normal Meal

– **Raktamokshana¹²** (Bloodletting Therapies): Leech therapy on 0 and 15th day.

– **Yoga Basti (Enema):**

Table (5): Sequence of Basti (Enema).

Sr. No	Day	Basti (Enema)
1	18 th	Anuvasana (Oil Enema)
2	19 th	Niruha (Decoction Enema)
3	20 th	Anuvasana (Oil Enema)
4	21 st	Niruha (Decoction Enema)
5	22 nd	Anuvasana (Oil Enema)
6	23 rd	Niruha (Decoction Enema)
7	24 th	Anuvasana (Oil Enema)
8	25 th	Anuvasana (Oil Enema)

Shamana Therapy (Pacification Therapy)

– **Internal Medications: 15 days**

- Tab. *Arogyavardhini Vati¹³* – 2 tabs twice a day after food
- *Haridrakhanda¹⁴* – 2 spoons twice a day after food with hot water
- Syrup *Heamoclean* – 3 spoons twice a day after food

– **Topical Application:** 777 oil twice daily

– **Pathya-Apathya¹⁵** (Diet):

- *Pathya:* *Laghu Ahara* (Light diet), *Tikta Shaka* (Vegetables having bitter taste), Old cereals, *Jangala Mamsa* (Meat of animals inhabiting arid land), *Mudga* (Green Gram).
- *Apathya:* All bakery products, Leftover food, Fermented foods, Curd, Papad, Pickles, and Packed food items.

Results

The combination of *Shodhana* therapy (detoxification therapy) including *Virechana* (purgation), *Basti* (enema), and *Raktamokshana* (leech therapy), followed by *Shamana* therapy (Pacification therapy) has considerably relieved the symptoms in the patient. After 40 days of treatment, the patient was relieved from severe itching, and lesions had reduced in size, numbers and intensity (Figure 2). The treatment was well-tolerated, with no complications or adverse effects reported.

After Treatment



Figure (2): The post-treatment images demonstrate residual hyperpigmented scars on the lower extremities and feet, consistent with the resolution phase of prior dermatologic lesions.

Table (6): Lichen Planus Severity Index Score¹⁶

Sr. No	Steps	Before Treatment	After Treatment
1	Assigning a body surface area factor	2 (27% Area Involved)	1 (13% Area Involved)
2	Lesion count and percentage	Hyperpigmented hypertrophic papules/plaques- 0 Violaceous plaques-0 Violaceous papules- 3 (3.40%) Erythematous papules- 32 (36.37%) Post-inflammatory hyperpigmentation- 53 (60.23%)	Hyperpigmented hypertrophic papules/plaques- 0 Violaceous plaques-0 Violaceous papules- 0 Erythematous papules- 0 Post-inflammatory hyperpigmentation- 40 (100%)
3	Assigning areas involving factor	Hyperpigmented hypertrophic papules/plaques- 0 Violaceous plaques-0 Violaceous papules- 1 Erythematous papules- 2 Post-inflammatory hyperpigmentation- 3	Hyperpigmented hypertrophic papules/plaques- 0 Violaceous plaques-0 Violaceous papules-0 Erythematous papules- 0 Post-inflammatory hyperpigmentation- 4
4	Multiplication factor	Hyperpigmented hypertrophic papules/plaques – 4 Violaceous flat plaques – 3 Violaceous flat papules – 2 Erythematous papules – 1 Post-inflammatory hyperpigmentation – 0	Hyperpigmented hypertrophic papules/plaques – 4 Violaceous flat plaques – 3 Violaceous flat papules – 2 Erythematous papules – 1 Post-inflammatory hyperpigmentation – 0
5	Final Lichen Planus Severity Index Score	8	0

Improvement in other Clinical Parameters: Other symptoms of the patient like pigmentation, and itching were improved. The treatment stopped the progression of the disease.

Patient-reported Outcome: The patient reported having an improved social life as previously the pigmentation caused low

esteem and confidence. The quality of her life increased considerably as she was able to appear in public without hiding the marks. The improvement in the appearance of the skin gave her confidence, and self-esteem and boosted her day-to-day activities.

Discussion

The case report illustrates the proper management of cutaneous lichen planus with Ayurvedic interventions. Improvement noted in the patient's condition years after her symptomatic relief to allopathic treatments underlines the promise of traditional interventions in chronic autoimmune disorders. The Ayurvedic principles for detoxifying the body and balancing humors provide a holistic framework for understanding and treating cutaneous lichen planus. The case was diagnosed on clinical features and a 10-year history of pruritic lesions. The differential diagnoses of psoriasis and eczema were excluded as no scaling and shiny papules were present. The *Virechana* (purgation), *Basti* (enema), and *Raktamokshana* (leech therapy) procedures are designed to remove vitiated humors and toxins accumulated in the body. The chosen therapies for this case effectively addressed key clinical symptoms such as itching, pigmentation, and papules. *Deepana* and *Pachana* (digestive) therapies helped by increasing digestive fire and eliminating toxins, thereby reducing *ama* buildup, which in turn minimized papules and pigmentation. *Snehapana* (oleation) and *Abhyanga* (body massage) therapies loosened and mobilized toxins while nourishing the skin and alleviating *Vata* humor, resulting in decreased dryness, itching, and inflammation. *Swedana* (sudation) therapy induced sweating, which facilitated the expulsion of deeper toxins and balanced the humors, thereby reducing pigmentation and the intensity of papules. *Virechana* (purgation) therapy efficiently cleansed the gastrointestinal tract, eliminated excess *Pitta* humor and toxins, and reduced inflammation, leading to alleviated itching and improved skin appearance. Leech therapy further removed impure blood, reduced inflammation, and promoted healing through blood circulation, thus addressing reduced itching, papules, and pigmentation. *Yoga Basti* (enema), including *Anuvasana Basti* (oil enema) and *Niruha Basti* (decoction enema), normalized *Vata* humor disturbances, nourished tissues, and removed deep-seated toxins, reducing pigmentation and the occurrence of papules. *Arogyavardhini Vati* played a crucial role in reducing hyperpigmentation by enhancing liver function and detoxifying the body. The formulation contains *Kutki* (*Picrorhiza kurroa*) and other herbs with anti-inflammatory, hepatoprotective, and blood-purifying properties. By supporting liver health, *Arogyavardhini Vati* helped eliminate systemic toxins that contribute to hyperpigmentation. The improved liver function led to better metabolism and removal of these toxins, resulting in clearer and more even-toned skin. *Haridrakhandha* was instrumental in alleviating itching and erythema (redness) due to its main ingredient, *Curcuma longa* (turmeric). Turmeric is renowned for its anti-inflammatory, antioxidant, and immunomodulatory properties. These properties helped reduce the inflammatory response in the skin, leading to a decrease in itching and redness. By modulating the immune system, *Haridrakhandha* also prevented the overreaction that often causes erythema, thus soothing the skin and providing relief from discomfort. Together, these combined therapies and herbal formulations contributed significantly to improving the patient's skin condition and overall quality of life.

Mode of Action

Deepana and *Pachana* (digestive therapy) prepare the body for subsequent, *Snehapana* (oleation therapy), and *Virechana* (purgation therapy) by increasing digestive fire and clearing *ama* (toxins) from the digestive tract. *Chitrakadi Vati* contains *Plumbago zeylanica*, known to enhance digestion. *EBH* helps regulate the bowels and acts as a gentle laxative. The gradual loosening of toxins occurs in *Snehapana* (oleation therapy) with

Mahatiktaka Ghrita (clarified butter), containing bitter herbs with anti-inflammatory and detoxifying properties.

The *Abhyanga* (body massage) with *Ksheerabala Taila* includes medicated oil prepared with *Bala* (*Sida cordifolia*) and milk. This alleviates *vata* humor, nourishes skin, muscles, and joints, has anti-inflammatory neuroprotection, triggers relaxation, and mobilizes toxins. *Swedana* (sudation therapy) with *Dashamula Kwatha* (decoction) induces sweating, opens pores, detoxifies the skin, balances *vata* and *kapha* humors, and facilitates toxins from deeper tissues into the digestive tract in readiness to expel the toxins in the treatment *Virechana* (purgation therapy).

Ichhabhedhi Rasa is a strong laxative used to start *Virechana* (purgation), made up of *Shuddha Parad* (Mercury), *Shuddha Gandhaka* (Sulphur), and *Shuddha Jayapala* (Croton), powerful in cleansing the gastrointestinal tract. The therapy removes excess *pitta* humor, toxins from the primary sites of *pitta* humor accumulation. Purgative action by *Ichhabhedhi Rasa* leads to multiple evacuations that remove endotoxins, inflammatory mediators, and metabolic waste. It soothes *pitta* humor and balances *vata* and *kapha* humors. *Virechana's* (purgation) anti-inflammatory effect diminishes redness and itching, and it stimulates detoxification. The treatment regulates the immune response by removing toxins that may cause hypersensitivity or autoimmunity. *Samsarjana Krama* (Graduated dietetic regimen) is restarted after purgation to reactivate digestive fire.

The principle of leech therapy works by sucking the impure blood that removes vitiated *Pitta* and *Rakta* humors. Blood detoxification helps remove such conditions. The bioactive compounds from the saliva of the leeches contain hirudin, which possesses anti-inflammatory, anticoagulant, and analgesic properties that reduce inflammation and inhibit blood coagulation while improving circulation and healing tissue. Additionally, leech therapy improves microcirculation through enhanced delivery of oxygen and nutrients to affected tissues, promoting skin lesion healing. It also modulates the immune response by reducing hypersensitivity and autoimmune-driven inflammation, thus it is useful in treating immune-mediated skin disorders.

Yoga Basti (Enema) is particularly effective because it involves a holistic approach to normalizing the disturbed state of *vata* humor associated with skin diseases in *Ayurveda*. *Anuvasana Basti*¹⁷ is a medicated oil enema, that helps loosen toxins, nourish tissues, balances *vata*, and minimizes dryness, itching, and inflammation. *Niruha Basti*¹⁸ is decoction-based enema that cleans the colon and removes toxins from the deeper tissues, which can perpetuate autoimmune conditions.

Arogyavardhini vati contains *Kutki* (*Picrorhiza kurroa*), along with other herbs having anti-inflammatory, hepatoprotective, and blood purifying effects, enhances the functioning of the liver while detoxicating the body of toxins and fights skin problems that occur from the effects of toxins as well as imbalance of *pitta* humor.

Haridrakhandha is a formulation in which *Curcuma longa* is the main ingredient owing to its anti-inflammatory, antioxidant, and immunomodulatory properties, it reduces itching, redness and inflammation.

Heamoclean Syrup is a polyherbal formulation based on blood-purifying herbs that contribute to detoxification by activating the liver and improving the health of the skin by clearing systemic toxins.

777 Oil contains anti-inflammatory, antimicrobial, and immunomodulatory properties. It reduces itching and redness because of the modulation of immune response.

Conclusion

This case study demonstrates the effectiveness of Ayurvedic treatments for chronic autoimmune conditions like cutaneous lichen planus. It supports the use of traditional healing methods alongside or in place of conventional treatments. This case adds to the increasing evidence supporting *Ayurveda* in treating chronic diseases, emphasizing the need for more in-depth research into alternative dermatological treatments and highlighting the necessity for additional research and larger clinical trials. In the realm of integrative health, this case reinforces the importance of embracing comprehensive methods that address both the symptoms and root causes of illnesses.

Disclosure Statement

- **Ethics approval and consent to participate:** Not applicable.
- **Consent for publication:** I voluntarily give my full consent for the publication of information related to my medical case in the mentioned manuscript. This may include details of my medical history, diagnosis, images, or other personal data as part of the case report. I understand that the manuscript may be published in print and electronic formats and made publicly accessible online and through other distribution channels. While efforts have been made to ensure confidentiality and anonymize personal identifiers, I acknowledge that complete anonymity cannot be guaranteed, and I may be identifiable through images or descriptions. I understand that this consent is given willingly and that, once published, the information cannot be withdrawn. I release the authors and publisher from any claims or liabilities related to the publication of this case report.
- **Availability of data and materials:** The data supporting the findings of this study are included in the article. All relevant information, including patient details, clinical observations, and therapeutic outcomes, is detailed in the manuscript. No additional datasets other than references were generated or analyzed during the study. Patient consent has been obtained for publication in this research.
- **Author's contribution:** The authors affirm that Dr. Urvi Shah contributed to the conceptualization and design of the study, data acquisition, analysis, therapeutic interventions, and patient management. The preparation of the initial manuscript draft was undertaken by Dr. Urvi Shah and Dr. Richa Raj. All authors critically reviewed the results and provided their approval for the final manuscript.
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References

- 1] Boch K, Langan EA, Kridin K, Zillikens D, Ludwig RJ, Bieber K. Lichen Planus. *Front Med (Lausanne)*. 2021 Nov 1;8:737813. doi: 10.3389/fmed.2021.737813. PMID: 34790675; PMCID: PMC8591129.
- 2] Dr. Rozy Sharma, & Dr. Manjunatha Adiga. (2021). Review on the disease Kustha and its management in Ayurvedic literature. *Journal of Ayurveda and Integrated Medical Sciences*, 6(02), 59-64. <https://doi.org/10.21760/jaims.v6i02.1247>
- 3] Dr. Bhojraj Arun Chaudhari, & Avinash B. Chavan. (2016). Panchakarma Perception - An Overview. *Journal of Ayurveda and Integrated Medical Sciences*, 1(01), 46-51. <https://doi.org/10.21760/jaims.v1i1.3635>
- 4] Anand, *Tekade, Deepali, W., Kavita, D., & Mukund, D. (2018). REVIEW OF ASHTAVIDHA PARIKSHA W.S.R. TO NADI PARIKSHA. *International Journal of Ayurveda and Pharma Research*, 6(1).
- 5] Thakur, Kritika & Toshikahne, Sangeeta & Sahu, Ravi & Patel, Rinal. (2021). ROLE OF DEEPANA-PACHANA IN PANCHAKARMA: A REVIEW. *GLOBAL JOURNAL FOR RESEARCH ANALYSIS*. 1-4. 10.36106/gjra/5809105.
- 6] S.Wasedar, Dr.Vishwanath & Davalbhai, Samiuzzama & Jain, Pallavi. (2023). A CRITICAL REVIEW ON SHODHANANGA SNEHAPANA. *World Journal of Pharmaceutical Research*. 12. 165-174. 10.20959/wjpr202314-29271.
- 7] Samata, Shaila Borannavar, & Ananta S. Desai. (2021). A conceptual study on the mode of action of Abhyanga. *Journal of Ayurveda and Integrated Medical Sciences*, 6(4), 208 - 215. <https://doi.org/10.21760/jaims.v6i4.1432>
- 8] Akhilanath Parida, Satyasmita Jena, Varun Sawant. A Critical Review on Action of Swedana vis-à-vis Sudation Therapy. *International Journal of Ayurveda and Pharma Research*. 2020;8(1):66-68.
- 9] Sudarshan Hande, Rahul Palshetkar, Ashish Mhatre, Amit Mujumdar, & Kavita Hande. (2016). Review of Virechana Karma in classical texts of Ayurveda. *Journal of Ayurveda and Integrated Medical Sciences*, 1(04), 105-117. <https://doi.org/10.21760/jaims.v1i4.6927>
- 10] Sen GD. Udavarta Aanaha Rogadhikara, SiddhiPrada on Bhaishajya Ratnaavali. In: Siddhi NM, editor. Varanasi: Choukhambha Surbharati Publication; 2009. p. 646.
- 11] Vaidya Jadavji Trikamji Acharya, Caraka Samhita Commentary of Ayurveda Deepika by Chakrapanidatta, Sutra Sthana, chapter 15 verse 16, Chaukambha Krishna das Academy, Varanasi, 2010; 95.
- 12] Gopal Singh, Ajay Kumar Gupta. Raktamokshana- Ancient Blood Letting Technique: A Review. *International Journal of*

- Ayurveda and Pharma Research. 2022;10(10):106-110.
<https://doi.org/10.47070/ijapr.v10i10.2558->
- 13] Mahajan, Bidhan & Pal, Santosh & Aku, Ramamurthy. (2016). Arogyavardhini Vati: A theoretical analysis. *Journal of Scientific and Innovative Research*. 5. 10.31254/jsir.2016.5605.
- 14] Dr. Makrand A. Sonare, Dr. Manoj Kumar Samantaray, & Dr. Vikram S. (2019). Critical analysis of Haridra Khanda - An Ayurvedic Formulation. *Journal of Ayurveda and Integrated Medical Sciences*, 4(05), 296-298.
<https://doi.org/10.21760/jaims.v4i05.738>
- 15] Amit Choudhary, Yadav, M., Sunita Dudi, Sachin Sharma, Chandan Singh, & Manoj Kumar Adlakha. (2023). An exploratory analysis of probable role of Pathya and Apathya in skin disease. *Journal of Ayurveda and Integrated Medical Sciences*, 8(5), 179 - 184.
<https://doi.org/10.21760/jaims.8.5.29>
- 16] Kaur H, Nikam BP, Jamale VP, Kale MS. Lichen Planus Severity Index: A new, valid scoring system to assess the severity of cutaneous lichen planus. *Indian J Dermatol Venereol Leprol* 2020;86:169-175
- 17] Jasminbegam B. Momin, P.V.Kulkarni, V.E.Gogate. Understanding of Anuvasana Basti (Medicated Oil Enema): Compilation from Brihattaryi. *International Journal of Ayurveda and Pharma Research*. 2020;8(7):42-52.
- 18] Vijay Madhukarrao Maske, Mayuri Narayanrao Manwatkar, A Critical Review on Concept of Niruha Basti Formulation. *J Ayu Int Med Sci*. 2023;8(4):147-154. Available From <https://jaims.in/jaims/article/view/2272>