EUROPEAN JOURNAL OF BIOMEDICAL AND PHARMACEUTICAL SCIENCES
http://www.ejbps.com

ISSN 2349-8870
Coden USA: EJBPBO
Volume: 13
Issue: 4
Year: 2026

SUSTAINED CLINICAL IMPROVEMENT IN PSORIASIS ASSESSED BY PSORIASIS AREA SEVERITY INDEX (PASI) SCORE FOLLOWING STEROID-FREE POLYHERBAL TREATMENT: A CASE SERIES

***Dr. Darshan Desai**

Chief Ayurveda Physician & Founder, AyuMD superspeciality Ayurveda clinic A002 Pawan Society, Chikuwadi, Borivali (West), Mumbai, India-400097.

***Corresponding Author: *Dr. Darshan Desai**

Chief Ayurveda Physician & Founder, AyuMD superspeciality Ayurveda clinic A002 Pawan Society, Chikuwadi, Borivali (West), Mumbai, India-400097.

DOI: https://doi.org/10.5281/zenodo.19413692

How to cite this Article: *Dr. Darshan Desai (2026). Sustained Clinical Improvement In Psoriasis Assessed By Psoriasis Area Severity Index (Pasi) Score Following Steroid-Free Polyherbal Treatment: A Case Series. European Journal of Biomedical and Pharmaceutical Sciences, 13(4), 349–353.

Article Received on 05/03/2026 **Article Revised on 25/03/2026** **Article Published on 04/04/2026**

ABSTRACT

Psoriasis is a chronic immune-mediated skin disorder with recurrent episodes, significant comorbidities, and impaired quality of life. Limitations of conventional therapies and fear of recurrence highlight the need for safe and sustainable alternatives. Present case series aims to evaluate the clinical outcomes of an Ayurveda-based structured therapeutic protocol in patients with chronic psoriasis. This case series included nine patients diagnosed with psoriasis based on clinical examination and Psoriasis Area Severity Index (PASI) scoring. A structured, phased Ayurvedic treatment protocol using a core group of herbal formulations was administered with individualized modifications. Patients were followed for 7–24 months. Clinical outcomes were assessed using changes in PASI scores and symptom improvement. All patients demonstrated substantial reduction in PASI scores, with improvement ranging from approximately 70% to 100%. Most patients showed marked or good clinical improvement, with reduction in itching, scaling, and associated symptoms. Sustained benefits were observed in the majority of cases, with minimal recurrence and no reported adverse effects. The findings suggest that present structured Ayurvedic therapeutic protocol may offer effective and sustained clinical improvement in psoriasis. Further randomized controlled trials with standardized outcome measures are warranted to validate these results.

KEYWORDS: Ayurveda, PASI score, Steroid-free treatment, Chronic Psoriasis, Neem, Herbal Treatment.

INTRODUCTION

Psoriasis is a chronic immune-mediated dermatological condition. It is estimated that approximately 100 million global population is affected by it.[1] Psoriasis causes major comorbidities even though it does not cause mortality. It is a condition that affects not just the skin and nails but also joints (psoriatic arthritis), eyes (uveitis), possibly as well the heart. Patients usually have recurring episodes, and quality of life can be drastically reduced.[2]

Psoriasis is characterized by hyperproliferation of keratinocytes accompanied by inflammatory changes in the skin. Clinically, this manifests as erythematous plaques with overlying silvery scales.[3] Conventional therapeutic strategies include topical corticosteroids, systemic immunomodulators, and biologics. While these approaches can be effective, long-term therapy may be associated with adverse effects, cost constraints, and recurrence after discontinuation.[4] In view of this, herbal and traditional medicine systems such as Ayurveda have gained more attention for effective psoriasis management.

In Ayurveda, psoriasis is commonly correlated with conditions such as *Kitibha Kushtha* or *Eka Kushtha*, which are described under the broad category of *Kushtha*, i.e., skin disorders. The Ayurvedic approach for skin disorders emphasizes upon correction of systemic imbalance through specialized internal medications. Thus, an innovative Ayurveda-based therapeutic protocol was developed for psoriasis management. Instead of giving medicines randomly, a structured and phased treatment plan was followed, where a set of core

medicines was given step-by-step and adjusted according to the severity of the disease and the patient's response.

In the present case series, nine patients were successfully managed using this innovative Ayurveda-based therapeutic approach. The present case series aims to document clinical outcomes of psoriasis patients managed with Ayurvedic treatment and to contribute observational evidence consistent with the CARE (CAse REport) guidelines.[5]

PATIENTS INFORMATION

Nine patients presenting with clinical features suggestive of psoriasis were included. Diagnosis was established based on dermatological examination and Psoriasis Area Severity Index (PASI) scoring. PASI scores were used to assess baseline disease severity as well as the treatment response.

Case 1

A 27-year-old male student presented with generalized scaling of the skin associated with severe itching, thick scalp scaling, joint pain with inflammation, and marked fatigue that limited his working capacity to less than six hours per day. The patient had a past history of malaria and jaundice 15 years earlier and skin sepsis in 2016, following which widespread psoriasis developed. He had received allopathic treatment with topical steroids and creams from a dermatologist but experienced repeated recurrences. A positive family history for psoriasis as well as metabolic disorders was noted.

Case 2

A 67-year-old retired male presented with flare-ups of psoriatic lesions over bilateral elbows, legs, and chest. He had a 30-year history of psoriasis with recurrent exacerbations. His medical history included multiple prior diseases, including jaundice, in addition to asthma requiring occasional inhaler use. The patient had previously received topical steroid-based treatment from a dermatologist for psoriasis, with only temporary relief and recurrent flare-ups.

Case 3

A 45-year-old male IT professional presented with psoriatic lesions over the scalp, ears, and bilateral ankles, accompanied by joint pain in the wrists and toes, ankle joint swelling, and neck stiffness, suggestive of joint involvement. The patient reported a five-year history of psoriasis. Past medical history included conditions such as jaundice, COVID-19 infection, thyroid disorder, hypercholesterolemia, and constipation. He had previously undergone allopathic treatment with topical steroids and creams, which resulted in temporary improvement but frequent recurrence. Family history was positive for multiple metabolic and lifestyle disorders.

Case 4

A 43-year-old male businessman had an eight-year history of psoriasis. He reported that the disease initially began on the scalp and gradually spread to the elbows, thighs, and bilateral legs. Past medical history included jaundice and certain other illnesses. Additionally, he complained of weight gain over the past 10 years, along with depression for the last eight months. The patient had previously received steroid-based dermatological treatment, which resulted in recurrent flare-ups of psoriasis.

Case 5

A 46-year-old male IT professional presented with psoriatic lesions initially involving the scalp and later spreading to the legs, arms, and face, along with facial pigmentation, swelling, and severe itching. The patient reported a five-year history of psoriasis. Past medical history included typhoid, asthma, jaundice, COVID-19 infection, hypertension, frequent seasonal cold and cough, fever of unknown origin, and slip disc. He had previously taken topical steroid therapy, which resulted in recurrent exacerbations.

Case 6

A 65-year-old retired male presented with palmoplantar psoriasis characterized by cracks over the palms and soles, bleeding, mild itching, and difficulty in walking. Psoriatic lesions were also present over the elbows. The patient had a 10-year history of psoriasis. His past medical history included thyroid disorder and urinary incontinence. There was no major family history.

Case 7

A 48-year-old male IT professional presented with bilateral scaling lesions over the legs and back, consistent with psoriasis. The patient reported a five-year history of the condition. There was no significant past medical history or family history.

Case 8

A 36-year-old male businessman presented with generalized inflammatory scaling involving the bilateral legs, back, thighs, and elbows. The patient had a 10-year history of psoriasis. There was no other significant past medical or family history.

Case 9

A 46-year-old female homemaker presented with generalized hyperpigmentation with scaling and mild itching involving the entire body, including the face and scalp. The patient reported a 12-year history of psoriasis. There was no significant past medical or family history.

Thus, all cases were diagnosed as psoriasis, with chronicity ranging between 5 and 30 years. Almost everyone had past experience of adverse effects due to medicinal steroidal use. Most patients reported experiencing adverse effects from previous steroid therapy. Along with psoriasis they were having certain other health issues too. Due to all these, the patients were keen for Ayurvedic therapy for disease management.

TREATMENT AND FOLLOW-UP

Across all nine cases, patients were managed using a standardized Ayurvedic polyherbal regimen with minor individualized modifications based on clinical response. The core treatment protocol consisted of proprietary herbal formulations viz., tablets -*Psoralia*, *Terminalia*, *Tinospora*, *Azadirachta*, and capsule- *Curcumin*.

During the course of treatment, periodic adjustments in dosage were made based on disease activity and clinical progress. In several cases, the dose of *Azadirachta* and *Curcumin* was increased to enhance therapeutic response. In some patients, additional supportive herbs such as *Embelia ribes*, *Rubia cordifolia*, *Ribes* species, *Bacopa* ghee, or *Cuminum* calx were introduced as adjunct therapy to address associated symptoms.

Regular follow-up visits were conducted to monitor clinical progress, modify medications when necessary, and ensure treatment adherence. The core protocol regimen consisted of *Psoralia* 2-tablets twice daily, *Terminalia* 2-tablets twice daily, *Tinospora* 2-tablets twice daily, *Azadirachta* 1-tablet twice daily, *Curcumin* 1-capsule twice daily, *Phyllanthus* 1 tablet once daily. The Table 1 presents an overview of case-wise treatment and major timelines for the same.

Table 1: overview of case-wise treatment additional to core regimen and major timelines.

Case	Initial Treatment Date	Key Modifications / Additions	Follow-up Period
1	16 Jan 2023	15 Apr 2023 – Rubia 2-tab BD added; 6 Jun 2023 – Ribes 2-tab OD added; Apr 2024 – Cumin calx 2-tab BD added	16 months
2	18 May 2024	19 Jun 2024 – Embelia 1 tab OD added; Jul 2024 – Azadirachta increased to 2-tab BD	9 months
3	5 Feb 2022	Apr 2022 – Embelia 1 tab OD added; Jun 2022 – Curcumin increased to 2 cap BD; Jul 2022 – Azadirachta increased to 2-tab BD	12 months
4	5 Jul 2021	Nov 2021 – Azadirachta increased to 2-tab BD; Apr 2023 – Azadirachta dose adjusted; Aug 2023 – Curcumin increased to 2 cap BD	24 month
5	24 Feb 2022	Jun 2022 – Azadirachta increased to 2-tab BD; intermittent treatment gaps	12 months
6	29 Mar 2025	May 2025 – Azadirachta increased to 2-tab BD; Jul 2025 – Bacopa ghee 1–2 tsp OD added	14 months
7	7 Jan 2025	May 2025 – Azadirachta increased to 2-tab BD; Jul 2025 – Bacopa ghee 1–2 tsp OD added	7 months
8	20 Nov 2024	Feb 2025 – dose adjustment to BD schedule; continued therapy; short treatment gap	7 months
9	26 Jan 2024	Nov 2024 – Bacopa ghee 1–2 tsp OD added; continued monthly follow-up	24 months
(BD- Twice Daily; OD- Once Daily; tsp- Teaspoon)			

OBSERVATIONS AND RESULTS

All patients were followed up regularly to monitor clinical response and disease progression. The PASI score was used to evaluate treatment outcomes. Overall, substantial clinical improvement was observed across the cases with reduction in PASI scores and improvement in associated symptoms. Figure 1 depicts a Bar diagram showing comparison of baseline and final PASI scores across nine patients. A marked contraction of the polygon representing final PASI values indicates substantial clinical improvement.

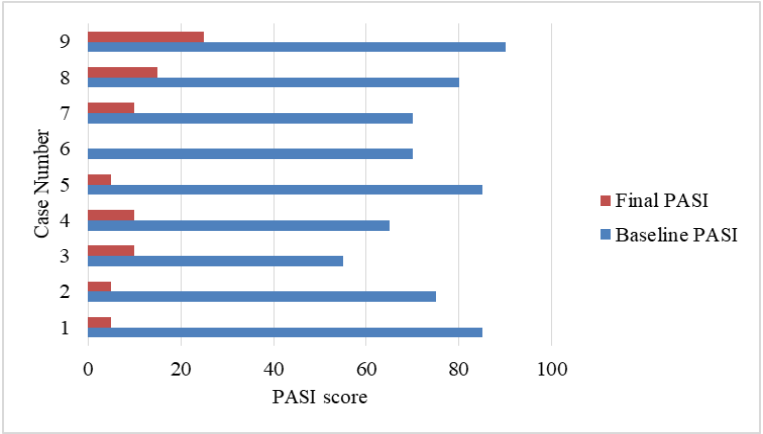

Figure 1: Bar diagram showing comparison of baseline and final PASI scores across nine patients.

The table 2 presents the percentage reduction in PASI scores and remarks regarding clinical observations in patients.

Table 2: Percentage reduction in PASI scores and clinical remarks.

Case	Baseline PASI	Final PASI	% Improvement	Remarks
1	85	5	~90%	Marked Improvement
2	75	5	~90%	Marked Improvement
3	55	10	~80%	Good Clinical Improvement
4	65	10	~70%	Gradual Improvement
5	85	5	~90%	Rapid Clinical Response
6	70	0	100%	No Recurrence Reported
7	70	10	~85%	One episode of recurrence
8	80	15	~80%	Significant improvement
9	90	25	~70%	No recurrence

Overall, the case series demonstrated substantial reduction in PASI scores with sustained clinical improvement in most patients, suggesting a favorable therapeutic response to the treatment protocol used in this study.

DISCUSSION

The treatment strategy primarily aimed at correcting underlying Dosha imbalance, reducing inflammation, improving immune regulation, and promoting skin healing, which are considered central principles in Ayurvedic management of psoriasis (*Kushtha*). The combination of herbs was selected for their anti-inflammatory, immunomodulatory, detoxifying, and *Rasayana* properties, which are relevant in managing chronic inflammatory skin conditions.

Although some patients experienced temporary gaps in treatment or follow-up, the core therapeutic regimen remained largely consistent across cases. Overall, the treatment approach reflected a personalized yet protocol-based Ayurvedic management strategy, combining a common core regimen with individualized modifications according to patient response and disease severity.

From an Ayurvedic perspective, psoriasis corresponds to *Kushta*, involving imbalance of *Vata* and *Kapha Dosha* along with vitiation of *Rakta dhatu*. Management strategies aim to correct systemic imbalance, detoxify the body, and restore normal skin physiology. The herbs used in the regimen have strong scientific evidence. For instance, anti-psoriatic activity of *Psoralia corylifolia* seed extract has been established along with its deep-rooted use in classical Ayurveda.[6] The *chebulanin* in *Terminalia chebula* exhibits a protective effect against psoriatic lesions and keratinocyte proliferation.[7] The anti-inflammatory and antimicrobial properties of *Tinospora cordifolia* make it a very important medicine in psoriasis management.[8] *Azadiracta indica* and *Curcuma longa* are natural blood purifiers that detox the body, treat skin inflammation and eliminate chances of microbial infections.[9,10] As Rakta Dhatu is closely associated with functioning of liver, the past history of jaundice in many patients was also taken into account. Medicines such as *Phyllanthus niruri*, *Embelia ribes* have potent hepatoprotective action.[11,12] As normal liver function is very important in such patients, emphasis was given when required. *Bacopa monnieri* is known for its nerve-soothing activity.[13] It was used when patients were having altered psychological status, which is very common among psoriatic patients.

Given the promising and sustained results, further randomized controlled trials using standardized outcome measures are needed.

CONCLUSION

This case series suggests that present systematic Ayurvedic management may provide meaningful improvement in psoriasis severity. The consistent reduction in PASI scores and clinical symptoms across nine patients suggests a promising effect. These preliminary findings highlight the need for larger prospective studies to further evaluate the efficacy and mechanisms of such Ayurvedic therapies in psoriasis.

PATIENT PERSPECTIVE

“I had this problem for many years and had almost accepted it as permanent. With the treatment, my symptoms like itching and scaling improved in a short period. I did not face any adverse effects, and this has given me new hope. I now feel confident that I can lead a normal life.”

ACKNOWLEDGEMENT

The author would like to acknowledge the Yoga and Nutrition Expert- Ms. Kirti Desai, AyuMD Superspeciality Clinic (A002, Pawan Society, Chikuwadi, Borivali West, Mumbai – 400092), for her general support and encouragement. Her association with this study is gratefully acknowledged.

REFERENCES

1. Wei J, Wang Y, Chen Y, Wang Z, Dai X, Gelfand JM, Bachelez H, Chen X, Xiao Y, Shen M. Global Burden of Psoriasis from 1990 to 2021 and Potential Factors: A Systematic Analysis. J Invest Dermatol., 2026; 146(4): 1034-1045.e22. doi: 10.1016/j.jid.2025.08.038. Epub 2025 Sep 8. PMID: 40930460.
2. Agarwal K, Das A, Das S, De A. Impact of Psoriasis on Quality of Life. Indian J Dermatol., 2022; 67(4): 387-391. doi: 10.4103/ijd.ijd_572_22. PMID: 36578706; PMCID: PMC9792014.

3. Wang L, Liu R, Tang Y, Ma Y, Wang G, Ruan Q, Zheng SJ. Advances in Psoriasis Research: Decoding Immune Circuits and Developing Novel Therapies. Int J Mol Sci., 2025; 26(18): 9233. doi: 10.3390/ijms26189233. PMID: 41009795; PMCID: PMC12470368.
4. Zhu B, Jing M, Yu Q, Ge X, Yuan F, Shi L. Treatments in psoriasis: from standard pharmacotherapy to nanotechnology therapy. Postepy Dermatol Alergol., 2022; 39(3): 460-471. doi: 10.5114/ada.2021.108445. Epub 2021 Aug 16. PMID: 35950130; PMCID: PMC9326914.
5. Riley DS, Barber MS, Kienle GS, Aronson JK, von Schoen-Angerer T, Tugwell P, Kiene H, Helfand M, Altman DG, Sox H, Werthmann PG, Moher D, Rison RA, Shamseer L, Koch CA, Sun GH, Hanaway P, Sudak NL, Kaszkin-Bettag M, Carpenter JE, Gagnier JJ. CARE guidelines for case reports: explanation and elaboration document. J Clin Epidemiol., 2017; 89: 218-235. doi: 10.1016/j.jclinepi.2017.04.026. Epub 2017 May 18. PMID: 28529185.
6. Alam F, Khan GN, Asad MHHB. Psoralea corylifolia L: Ethnobotanical, biological, and chemical aspects: A review. Phytother Res., 2018; 32(4): 597-615. doi: 10.1002/ptr.6006. Epub 2017 Dec 15. PMID: 29243333; PMCID: PMC7167735.
7. An J, Li T, Dong Y, Li Z, Huo J. Terminalia Chebulanin Attenuates Psoriatic Skin Lesion via Regulation of Heme Oxygenase-1. Cell Physiol Biochem., 2016; 39(2): 531-43. doi: 10.1159/000445645. Epub 2016 Jul 7. PMID: 27383847.
8. Gupta A, Gupta P, Bajpai G. Tinospora cordifolia (Giloy): An insight on the multifarious pharmacological paradigms of a most promising medicinal ayurvedic herb. Heliyon, 2024; 10(4): e26125. doi: 10.1016/j.heliyon. 2024.e26125. PMID: 38390130; PMCID: PMC10882059.
9. Pandey S, Jha A, Kaur V. Aqueous extract of neem leaves in treatment of Psoriasis vulgaris. Indian J Dermatol Venereol Leprol., 1994; 60: 63-67.
10. Kantasa T, Yeerong K, Klinjan P, Na Takuathung M, Settakorn K, Chuamanochan M, Tovanabutra N, Ampasavate C, Koonrungsesomboon N. Therapeutic Potential of Curcumin and Novel Formulations in Psoriasis Treatment: Evidence and Future Prospects. Drug Des Devel Ther., 2025; 19: 5387-5414 https://doi.org/10.2147/DDDT.S520555
11. Sowjanya K, Girish C, Bammigatti C, Prasanna Lakshmi NC. Efficacy of Phyllanthus niruri on improving liver functions in patients with alcoholic hepatitis: A double-blind randomized controlled trial. Indian J Pharmacol., 2021; 53(6): 448-456. doi: 10.4103/ijp.IJP_540_20. PMID: 34975132; PMCID: PMC8764976.
12. Parimala P, Dayanand Reddy G, Sudha N and Tripurasundari B. Study on the Hepatoprotective Activity of Embelia Ribes on D- Galactosamine Induced Hepatotoxic Rats. J of Pharmacol & Clin Res., 2023; 9(2): 555765. DOI: 10.19080/JPCR.2023.09.555765
13. Gościniak A, Stasiłowicz-Krzemień A, Szeląg M, Pawlak J, Skiera I, Kwiatkowska H, Nowak N, Bernady K, Trzaskoma P, Zimak-Krótkopad O, Cielecka-Piontek J. Bacopa monnieri: Preclinical and Clinical Evidence of Neuroactive Effects, Safety of Use and the Search for Improved Bioavailability. Nutrients, 2025; 17(11): 1939. doi: 10.3390/nu17111939. PMID: 40507208; PMCID: PMC12158153.