

THERAPEUTIC POTENTIAL OF IKSHVAKU-BASED VAMANA KARMA IN EKA KUSHTHA (PSORIASIS): A NARRATIVE REVIEW OF CLASSICAL AYURVEDIC CONCEPTS AND CONTEMPORARY EVIDENCE

Dr Rajni Sharma¹, Dr Rekha Phull², Dr Swati Sharma³, Dr Seema Yadav⁴

¹Phd Scholar, Department of Panchkrama, Faculty of Indian Medical system, SGT university, Gurugram

²Professor & HOD, Department of Kaya Chikitsa, Faculty of Indian Medical system, SGT university, Gurugram

³Associate professor, Department of Roga Nidana Evam Vikriti Vigyana, Faculty of Indian Medical system, SGT university, Gurugram

⁴Assistant professor, Department of Prasuti Tantra and Stree Roga, Faculty of Indian Medical system, SGT university, Gurugram

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ABSTRACT

Background Eka Kushtha is one of the important dermatological disorders described in Ayurveda under the category of Kshudra Kushtha. It is characterized by chronicity, extensive skin involvement, scaling, itching, dryness, and recurrence. Based on clinical presentation, Eka Kushtha is commonly correlated with psoriasis, a chronic immune-mediated inflammatory skin disorder of modern dermatology. Despite advancements in therapeutic approaches, psoriasis remains a recurrent condition requiring long-term management.

Ayurveda emphasizes correction of disease pathology through elimination of aggravated Doshas and restoration of physiological balance. Among Panchakarma procedures, Vamana Karma is considered a prime Shodhana therapy for Kapha predominant disorders. Ikshvaku (*Lagenaria siceraria* (Mol.) Standl.) is described as an important Vamana Dravya in classical Ayurvedic literature.

Aim The present narrative review aims to explore the therapeutic potential of Ikshvaku-based Vamana Karma in Eka Kushtha by integrating classical Ayurvedic concepts with contemporary scientific evidence.

Materials and Methods A narrative literature review was conducted through classical Ayurvedic texts and electronic databases. Classical references from Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya, and Bhavaprakasha Nighantu were analyzed. Published research articles from databases including PubMed, Scopus, Web of Science, Google Scholar, and AYUSH Research Portal were reviewed using keywords related to Eka Kushtha, psoriasis, Vamana Karma, Panchakarma, Ikshvaku, and *Lagenaria siceraria*. Relevant literature was critically analyzed.

Results Ayurvedic classics describe Kushtha as a disorder involving Tridosha imbalance with involvement of Twak (skin), Rakta (blood), Mamsa (muscle tissue), and Lasika (lymphatic tissue). Eka Kushtha is considered predominantly Kapha-Vata dominant and presents with features comparable to psoriasis. Vamana Karma facilitates elimination of aggravated Kapha Dosha and is therefore considered therapeutically relevant. Ikshvaku is described among Vamana Dravyas due to its emetic property. Contemporary studies on *Lagenaria siceraria* suggest antioxidant, anti-inflammatory, and immunomodulatory potential. However, clinical studies specifically evaluating Ikshvaku-based Vamana in Eka Kushtha remain limited.

Conclusion Ikshvaku-based Vamana Karma represents a promising area of Ayurvedic research in chronic dermatological disorders. Although classical evidence supports its therapeutic rationale, systematic clinical studies with standardized protocols and objective outcome measures are required for scientific validation.

Keywords: Eka Kushtha; Psoriasis; Vamana Karma; Ikshvaku; Panchakarma; Shodhana; Ayurveda; *Lagenaria siceraria*

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1. INTRODUCTION

Skin disorders represent a significant health burden due to their chronic nature, recurrence, cosmetic impact, and psychological consequences. Psoriasis is one of the most prevalent chronic inflammatory dermatological disorders affecting approximately 2–3% of the global population. It is characterized by erythematous plaques, scaling, itching, and periods of exacerbation and remission.

Modern understanding describes psoriasis as an immune-mediated inflammatory disease involving complex interactions between keratinocytes, T lymphocytes,

dendritic cells, and inflammatory cytokines. Although therapeutic advances including topical agents, systemic immunosuppressive drugs, and biological therapies have improved disease control, recurrence, adverse effects, and long-term treatment dependency remain major concerns.

Ayurveda provides a comprehensive approach toward chronic diseases through correction of causative factors, improvement of metabolism, and purification of the body. Skin diseases are described under the broad category of Kushtha Roga, which includes a spectrum of disorders

produced due to vitiation of Doshas and involvement of multiple tissues.

Acharya Charaka has classified Kushtha into Mahakushtha and Kshudra Kushtha. Eka Kushtha is described under Kshudra Kushtha and is characterized by:

- Aswedanam (absence of sweating)
- Mahavastu (large area involvement)
- Matsyashakalopamam (scaling resembling fish scales)

These clinical features show similarity with plaque psoriasis, making Eka Kushtha an important condition for Ayurvedic dermatological research.

Ayurveda considers chronic skin disorders as disorders requiring systemic correction. Shodhana therapy is emphasized for elimination of aggravated Doshas. Among Panchakarma procedures, Vamana Karma is specifically indicated for Kapha dominant conditions. Since Eka Kushtha exhibits Kapha-associated manifestations such as itching, thickness, and excessive scaling, Vamana becomes a rational therapeutic intervention.

Ikshvaku, described among Vamana Dravyas, possesses therapeutic emetic action and has been traditionally used for inducing controlled therapeutic vomiting. Although classical literature provides a strong foundation for its application, scientific evaluation regarding its role in Eka Kushtha requires further exploration.

Therefore, this narrative review aims to critically analyze the classical rationale and contemporary evidence regarding Ikshvaku-based Vamana Karma in Eka Kushtha.

2. Aim and Objectives

Aim

To evaluate the therapeutic potential of Ikshvaku-based Vamana Karma in Eka Kushtha through classical Ayurvedic references and available scientific evidence.

Objectives

1. To review the Ayurvedic concept of Eka Kushtha.
2. To analyze the role of Shodhana therapy in Kushtha management.
3. To explore the classical importance of Vamana Karma.
4. To evaluate Ikshvaku as a Vamana Dravya.
5. To review contemporary evidence related to *Lagenaria siceraria*.
6. To identify research gaps and future possibilities.

3. Materials and Methods

3.1 Review Design

The present study was conducted as a narrative review based on classical Ayurvedic literature and contemporary scientific publications. The review methodology was guided by the principles recommended in PRISMA 2020 for systematic reporting.

3.2 Literature Sources

Classical Literature

The following classical texts were reviewed:

Text	Relevant Section
Charaka Samhita	Kushtha Chikitsa
Sushruta Samhita	Kushtha Nidana and Chikitsa

Text

Ashtanga Hridaya Kushtha Chikitsa

Bhavaprakasha Nighantu Dravyaguna description

Electronic Databases

- PubMed
- Scopus
- Web of Science
- Google Scholar
- AYUSH Research Portal

3.3 Inclusion Criteria

Articles were included if they:

- Described Eka Kushtha or psoriasis.
- Evaluated Vamana Karma or Panchakarma.
- Discussed Ikshvaku or *Lagenaria siceraria*.
- Included classical Ayurvedic references.
- Provided pharmacological or clinical evidence.

3.4 Exclusion Criteria

Articles were excluded if they:

- Were duplicate publications.
- Were unrelated to the review objectives.
- Lacked accessible full text.

4. Ayurvedic Concept of Eka Kushtha

4.1 Definition

Eka Kushtha is classified under Kshudra Kushtha. The disease is characterized by involvement of skin with predominant Dosha imbalance.

According to Charaka Samhita:

"Aswedanam Mahavastu Matsyashakalopamam"

These features indicate:

- Reduced sweating
- Extensive lesions
- Scaling pattern

4.2 Nidana (Etiological Factors)

Ayurveda describes several causative factors responsible for Kushtha development:

Dietary Factors

- Viruddha Ahara (incompatible food)
- Excessive intake of Guru and Snigdha Ahara
- Improper dietary habits

Lifestyle Factors

- Daytime sleep
- Improper exercise habits
- Suppression of natural urges

Psychological Factors

- Excessive stress
- Mental disturbances

These factors contribute to Agnimandya, Ama formation, and Dosha imbalance.

4.3 Samprapti (Pathogenesis)

The Ayurvedic pathogenesis of Eka Kushtha can be summarized as:

Nidana Sevana

↓

Agnimandya

↓

Ama Formation



Dosha Prakopa



Twak-Rakta-Mamsa-Lasika involvement



Eka Kushtha manifestation

5. Correlation of Eka Kushtha with Psoriasis

The correlation between Ayurvedic descriptions and modern dermatological entities requires careful interpretation because Ayurveda classifies diseases based on etiopathogenesis, Dosha predominance, and clinical manifestations rather than only anatomical or pathological similarity.

Eka Kushtha exhibits several clinical similarities with plaque psoriasis, including:

Ayurvedic Feature	Clinical Interpretation	Psoriasis Correlation
Aswedanam	Altered sweating pattern	Dry, scaly plaques
Mahavastu	Extensive involvement	Large body surface involvement
Matsyashakalopamam	Fish-scale-like appearance	Silvery scaling
Kandu	Itching	Pruritus
Rukshata	Dryness	Xerosis and scaling

However, Eka Kushtha should not be considered an exact synonym for psoriasis. The correlation is based on overlapping clinical features and requires consideration of Ayurvedic pathogenesis.

6. Role of Shodhana Therapy in Kushtha

Ayurveda considers Kushtha as a disease involving deep tissue involvement and chronic Dosha imbalance. Therefore, elimination of aggravated Doshas is emphasized for achieving sustained improvement.

Acharya Charaka has described repeated Shodhana procedures in Kushtha management because of:

- Chronicity of disease
- Dosha accumulation
- Recurrence tendency
- Involvement of multiple Dhatus

The selection of Shodhana depends upon Dosha predominance.

Dosha Predominance Preferred Shodhana

Kapha	Vamana Karma
Pitta	Virechana Karma
Rakta involvement	Raktamokshana

Dosha Predominance Preferred Shodhana

Vata predominance Basti

Since Eka Kushtha is generally considered Kapha-Vata dominant, Vamana Karma has therapeutic relevance.

7. Concept of Vamana Karma

7.1 Definition

Vamana Karma is the therapeutic procedure of inducing controlled vomiting for elimination of aggravated Doshas, especially Kapha, from the body.

It is considered the primary purification procedure among Panchakarma therapies.

The procedure consists of three stages:

1. Purva Karma (Preparatory Procedure)

Deepana-Pachana

Improves digestive capacity and facilitates Ama digestion.

Snehapana

Internal oleation helps mobilization of Doshas from peripheral tissues.

Abhyanga and Swedana

These procedures promote Dosha liquefaction and movement toward the gastrointestinal tract.

2. Pradhana Karma (Main Procedure)

Administration of Vamana Dravya induces therapeutic emesis resulting in elimination of accumulated Kapha Dosha.

3. Paschat Karma (Post Procedure)

Samsarjana Karma is advised to restore digestive strength and gradually normalize diet.

7.2 Therapeutic Rationale of Vamana in Eka Kushtha

The probable effects of Vamana Karma in Eka Kushtha are:

Vamana Action Possible Therapeutic Effect

Kapha elimination	Reduction in itching and heaviness
Kleda reduction	Improvement in excessive moisture and scaling
Agni stimulation	Better metabolism
Srotoshodhana	Improved tissue function
Dosha balance	Reduced recurrence tendency

8. Ikshvaku as Vamana Dravya

8.1 Botanical Identity

Botanical Name: *Lagenaria siceraria* (Mol.) Standl.

Family: Cucurbitaceae

Commonly known as bottle gourd, Ikshvaku is traditionally described as a medicinal plant possessing Vamaka property.

8.2 Classical Description

Ikshvaku is mentioned among Vamana Dravyas in Ayurvedic texts.

The therapeutic importance of Ikshvaku is attributed to:

- Ability to induce therapeutic emesis
- Kapha eliminating action
- Shodhana property

Table 1: Properties of Ikshvaku According to Ayurvedic Perspective

Parameter	Description
Dravya	Ikshvaku
Botanical identity	<i>Lagenaria siceraria</i>
Family	Cucurbitaceae
Karma	Vamaka
Main Dosha action	Kapha elimination
Therapeutic application	Vamana Karma

9. Pharmacological Perspective of *Lagenaria siceraria*

Modern research on *Lagenaria siceraria* has reported several biological activities that may provide supportive evidence for its therapeutic relevance.

9.1 Antioxidant Activity

Oxidative stress plays an important role in chronic inflammatory disorders.

The antioxidant activity of *Lagenaria siceraria* may contribute through:

- Reduction of free radicals
- Protection against oxidative damage
- Support of cellular repair mechanisms

9.2 Anti-inflammatory Potential

Inflammation is a major component of psoriasis pathogenesis.

Studies have reported anti-inflammatory activity of plant constituents that may influence:

- Inflammatory mediator production
- Cellular oxidative stress
- Immune responses

9.3 Immunomodulatory Activity

Psoriasis involves abnormal activation of immune pathways.

Plant-derived bioactive compounds may influence immune regulation through:

- Modulation of inflammatory pathways
- Regulation of immune cell activity

However, direct studies evaluating the immunological effects of Ikshvaku used specifically as Vamana therapy are currently insufficient.

Table 2: Reported Pharmacological Activities of *Lagenaria siceraria*

Activity	Potential Significance
Antioxidant	Reduction of oxidative stress
Anti-inflammatory	Control of inflammatory responses
Antimicrobial	Protection against selected pathogens
Hepatoprotective	Supportive metabolic activity

Activity

Potential Significance

Immunomodulatory Regulation of immune response

10. Clinical Evidence of Vamana Karma in Eka Kushtha

Clinical research evaluating Panchakarma interventions has demonstrated encouraging outcomes in Eka Kushtha and psoriasis-like disorders.

Available studies indicate improvement in:

- Kandu (itching)
- Scaling
- Erythema
- Lesion severity
- Quality of life parameters

However, available evidence requires cautious interpretation because:

- Sample sizes are limited.
- Different Vamana drugs have been used.
- Follow-up duration is variable.
- Objective parameters are not consistently applied.

Table 3: Summary of Available Clinical Evidence

Intervention	Condition Studied	Outcome Reported
Vamana Karma	Eka Kushtha	Improvement in clinical symptoms
Panchakarma therapy	Psoriasis-like disorders	Reduction in disease severity
Shodhana followed by Shamana	Chronic skin disorders	Symptomatic improvement

11. Probable Mechanism of Action of Ikshvaku-Based Vamana

The mechanism can be understood from both Ayurvedic and contemporary perspectives.

Ayurvedic Perspective

Ikshvaku Vamana

↓
Elimination of aggravated Kapha Dosha

↓
Reduction of Kleda

↓
Improvement of Agni

↓
Srotoshodhana

↓
Restoration of Dosha equilibrium

↓
Improvement in skin manifestations

Contemporary Perspective

Possible mechanisms may include:

- Reduction of systemic inflammatory load
- Improvement of metabolic function
- Modulation of immune response
- Influence on gut-skin axis

The gut-skin axis has gained importance in recent dermatological research, suggesting a possible relationship

between gastrointestinal function, immunity, and inflammatory skin disorders.

12. Discussion

Eka Kushtha represents a chronic dermatological condition where Dosha imbalance, impaired metabolism, and tissue involvement contribute to disease manifestation. Unlike approaches focusing only on external symptoms, Ayurveda emphasizes correction of internal pathology.

The classical rationale behind Vamana Karma in Eka Kushtha is based on Kapha elimination. Kapha contributes to symptoms such as itching, heaviness, and excessive accumulation of Kleda. By removing aggravated Kapha, Vamana may help restore physiological balance.

Ikshvaku holds importance because it is specifically described as a Vamana Dravya. The therapeutic action of Ikshvaku is therefore not limited to its phytochemical properties but also includes its role as an agent facilitating controlled Shodhana.

Contemporary pharmacological studies provide supportive evidence regarding antioxidant and anti-inflammatory activities of *Lagenaria siceraria*. However, it is important to recognize that these studies evaluate the plant extract or constituents and cannot be directly equated with the clinical effect of therapeutic Vamana.

The integration of classical knowledge with modern research methodology can provide a scientific framework for evaluating Ikshvaku-based Vamana Karma.

13. Research Gaps and Future Perspectives

Although Vamana Karma has been described extensively in classical Ayurvedic literature and preliminary clinical studies indicate its usefulness in Eka Kushtha, scientific evidence specifically related to **Ikshvaku-based Vamana Karma** remains inadequate. Several areas require systematic investigation to establish its clinical applicability and acceptance in evidence-based Ayurveda.

13.1 Lack of Specific Clinical Trials on Ikshvaku Vamana

Most available clinical studies evaluating Vamana in Eka Kushtha have focused on other Vamana drugs, particularly Madanaphala. Although Ikshvaku is classically described as a Vamana Dravya, its clinical efficacy, safety profile, and therapeutic reproducibility require dedicated evaluation.

Future research should focus on:

- Standardization of Ikshvaku preparation
- Selection of appropriate dosage
- Assessment of Vamana Vega (bouts of vomiting)
- Evaluation of Samyak Vamana Lakshana
- Comparison with established Vamana drugs

13.2 Need for Standardized Treatment Protocols

Variability in Panchakarma procedures remains a major challenge in clinical research.

Future studies should clearly define:

Purva Karma Protocol

- Duration of Deepana-Pachana
- Type and dose of Snehapana
- Duration of Abhyanga and Swedana

Pradhana Karma Protocol

- Preparation of Ikshvaku formulation
- Dose calculation
- Vamana initiation criteria

- Assessment parameters

Paschat Karma Protocol

- Duration of Samsarjana Krama
- Dietary guidelines
- Follow-up care

Standardization will improve reproducibility and comparability between studies.

13.3 Incorporation of Objective Assessment Parameters

Future clinical trials should combine Ayurvedic assessment with validated modern outcome measures.

Disease Severity Parameters

- Psoriasis Area and Severity Index (PASI)
- Body Surface Area (BSA)
- Physician Global Assessment (PGA)

Quality of Life Assessment

- Dermatology Life Quality Index (DLQI)

Laboratory Assessment

Possible biomarkers:

- C-reactive protein (CRP)
- Tumor necrosis factor-alpha (TNF- α)
- Interleukin-17 (IL-17)
- Interleukin-23 (IL-23)

Table 4: Suggested Outcome Parameters for Future Clinical Trials

Domain	Assessment Parameter
Disease severity	PASI score
Skin involvement	BSA percentage
Quality of life	DLQI
Inflammatory status	Cytokine profile
Safety	Hematological and biochemical parameters
Ayurvedic assessment	Dosha-Dushya evaluation

13.4 Pharmacological and Mechanistic Research

Although *Lagenaria siceraria* has demonstrated antioxidant and anti-inflammatory properties, further research is required to understand:

- Active phytoconstituents responsible for biological activity
- Molecular pathways involved
- Effect on inflammatory mediators
- Influence on immune regulation

Experimental studies may evaluate:

- Cytokine modulation
- Oxidative stress markers
- Immunological changes after Vamana
- Alterations in gut microbiota

13.5 Long-Term Follow-Up Studies

Eka Kushtha is a chronic and recurrent disorder. Therefore, evaluation only after completion of therapy may not provide complete information regarding effectiveness.

Future studies should include:

- Minimum follow-up of 6–12 months
- Assessment of recurrence rate
- Requirement of additional therapy
- Maintenance of symptom improvement

14. Limitations of Existing Evidence

The current evidence regarding Ikshvaku-based Vamana has several limitations:

1. Limited number of clinical studies.
2. Absence of large randomized controlled trials.
3. Variation in Panchakarma protocols.
4. Limited pharmacological studies directly related to Vamana action.
5. Lack of multicentric research.
6. Insufficient long-term safety and efficacy data.
7. Limited integration of modern biomarkers with Ayurvedic assessment.

Therefore, available evidence should be interpreted as supportive rather than conclusive.

15. Proposed Research Framework for Future Studies

A scientifically robust evaluation of Ikshvaku-based Vamana may include:

Study Design

Randomized controlled clinical trial.

Possible Study Groups

Group Intervention

Group A Ikshvaku-based Vamana Karma

Group B Standard Vamana drug-based therapy

Group C Conventional Ayurvedic Shamana therapy

Primary Outcomes

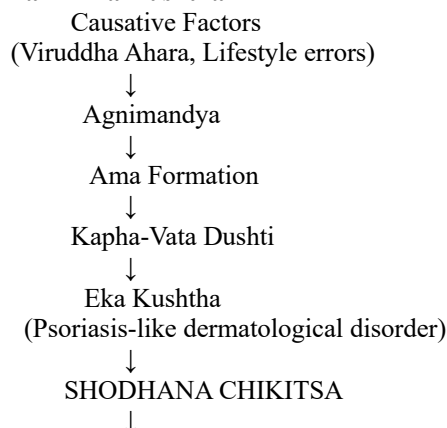
- Reduction in PASI score
- Improvement in clinical symptoms
- Reduction in lesion severity

Secondary Outcomes

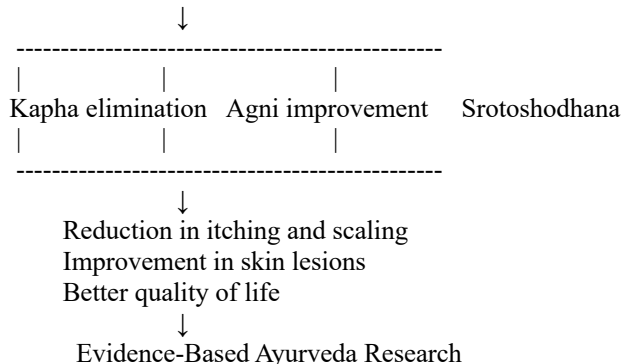
- Quality of life improvement
- Recurrence assessment
- Laboratory inflammatory markers
- Safety parameters

16. Graphical Abstract

Therapeutic Potential of Ikshvaku-Based Vamana Karma in Eka Kushtha



IKSHVAKU VAMANA KARMA



17. Conclusion

Eka Kushtha is a chronic dermatological disorder described in Ayurveda with significant similarity to psoriasis. The disease involves complex interaction between Dosha imbalance, impaired Agni, Ama formation, and tissue involvement.

Ayurvedic classics emphasize Shodhana therapy for chronic skin disorders, and Vamana Karma holds importance in Kapha predominant conditions. Since Eka Kushtha demonstrates Kapha-associated clinical features, Vamana therapy provides a rational therapeutic approach.

Ikshvaku (*Lagenaria siceraria*) is described as an important Vamana Dravya in classical Ayurvedic texts. Its therapeutic relevance is supported by its classical emetic action and emerging pharmacological evidence demonstrating antioxidant and anti-inflammatory activities.

However, current scientific evidence regarding Ikshvaku-based Vamana specifically in Eka Kushtha remains limited. Well-designed clinical trials incorporating standardized protocols, objective disease assessment tools, laboratory biomarkers, and long-term follow-up are necessary.

Future research integrating classical Ayurvedic principles with modern scientific methodologies may establish the role of Ikshvaku-based Vamana Karma as an evidence-based intervention for chronic inflammatory dermatological disorders.

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