

**"EXPLORING THE EFFICACY OF PRACHHANA KARMA WITH
GUNJA KALKA LEPA IN TREATING KHALITYA ROGA,
EMPHASIZING ALOPECIA AREATA" - CASE STUDY**

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ABSTRACT

This case study delves into the effectiveness of Prachhana Karma, combined with Gunja Kalka Lepa, in addressing Khalitya Roga, with a specific focus on Alopecia Areata. Khalitya, commonly known as alopecia, presents a significant challenge, especially concerning its impact on individuals' self-esteem and overall well-being. Traditional treatments often fall short in providing satisfactory outcomes, necessitating exploration into alternative therapeutic modalities. Prachhana Karma, a para-surgical technique, along with Gunja Kalka Lepa, emerges as a promising intervention. This study documents the experiences and outcomes of individuals undergoing this treatment regimen, shedding light on its potential as a viable approach in managing Khalitya Roga, particularly in cases of Alopecia Areata. Through meticulous observation and analysis, this research contributes valuable insights into the efficacy of Prachhana Karma with Gunja

Kalka Lepa, paving the way for further exploration and refinement of treatment protocols for Khalitya.

KEYWORDS: Prachhana Karma, Gunja Kalka Lepa, Khalitya Roga, Alopecia Areata, Treatment Efficacy.

INTRODUCTION

Khalitya, commonly known as alopecia or balding, typically begins asymptotically around the age of 50-60 but has become increasingly prevalent in younger individuals due to various

factors. This condition entails the loss of hair from the scalp or body, with varying severity ranging from localized patches to total baldness. While inflammation or scarring of hair follicles may or may not be present, psychological distress can contribute to hair loss, as seen in conditions like telogen effluvium characterized by thinning hair.

The etiology of Khalitya involves the vitiation of Pitta and Vata doshas, along with the involvement of Kapha and Rakta doshas.^[1] This imbalance leads to dislodgement or withering of hair from the roots and obstruction to hair growth. Different types of Khalitya are classified based on the predominant dosha involved, such as Vataja, Pittaja, Kaphaja, and Sannipataja or Tridoshaja Khalitya.^[2]

Alopecia areata, characterized by the loss of previously existing scalp hair, can be temporary or permanent. Believed to be an autoimmune disease, it occurs when the body attacks its own hair follicles, resulting in smooth, round patches of hair loss, particularly on the scalp. Despite this, many individuals with alopecia are often in excellent health, and most experience regrowth of their hair over time.

NEED OF STUDY

The rising incidence of premature hair loss, particularly among Indian women, necessitates effective treatment options. Despite extensive research, satisfactory solutions for conditions like Khalitya and Alopecia Areata remain elusive. This study investigates Prachhara Karma's efficacy, aiming to fill gaps in treatment and provide relief for affected individuals.

REVIEW OF LITERATURE^[3]

1. Prevalence of Hair Loss

- Studies indicate a rising incidence of premature hair loss, notably among Indian women.
- Factors such as modern lifestyle, dietary habits, stress, and environmental pollutants contribute to this trend.

2. Impact on Psychological Well-being

- Hair loss, particularly at a young age, significantly affects individuals' self-esteem and mental health.
- Societal norms, especially in India, associate thick, long hair with beauty and attractiveness, intensifying the emotional distress caused by hair loss.

3. Existing Treatment Modalities

- Current treatments for hair loss, including topical solutions, oral medications, and surgical interventions, offer limited efficacy.
- These treatments often provide temporary relief and fail to address the underlying causes of hair loss effectively.

4. Ayurvedic Perspective

- Ayurveda identifies the vitiation of Pitta and Vata doshas, followed by Kapha and Rakta doshas, as the underlying cause of hair loss.
- Prachhana Karma, a para-surgical technique rooted in Ayurveda, shows promise in treating hair loss disorders by restoring dosha balance.

5. Research Gap

- Despite extensive research, satisfactory solutions for hair loss disorders like Khalitya and Alopecia Areata remain elusive.
- There is a need to explore alternative therapeutic approaches that offer long-term efficacy and address the root causes of hair loss.

6. Study Objective

- The present study aims to investigate the efficacy of Prachhana Karma in treating Khalitya Roga, with a specific focus on Alopecia Areata.
- By filling existing research gaps, this study seeks to provide valuable insights into the potential of Ayurvedic interventions for hair loss disorders.

7. Significance of Prachhana Karma

- Prachhana Karma involves the application of medicated pastes or powders followed by gentle abrasion, aiming to stimulate hair growth and restore dosha balance.
- This non-invasive, para-surgical technique offers a holistic approach to hair loss treatment, aligning with Ayurvedic principles of healing.

8. Proposed Methodology

- The study will involve a cohort of participants diagnosed with Khalitya Roga, including those with Alopecia Areata.
- Participants will undergo Prachhana Karma treatment, with regular follow-ups to assess treatment efficacy and outcomes.

9. Expected Outcomes

- It is anticipated that Prachhana Karma will lead to significant improvements in hair growth and quality among participants.
- By documenting treatment outcomes and experiences, the study aims to provide empirical evidence supporting the efficacy of Ayurvedic interventions for hair loss disorders.

10. Implications for Clinical Practice

- Findings from this study could inform clinical practice and guide healthcare professionals in offering alternative treatments for hair loss disorders.
- Prachhana Karma has the potential to emerge as a cost-effective and accessible treatment option for individuals struggling with hair loss.

MATERIALS AND METHODS

Materials Needed

1. Vruddhipatra (scalpel) and Utpal patra
2. Insulin syringe, disposable gloves, cotton, etc.

Prachhana Karma^[4]

1. Prachhana Karma is a type of Raktamokshan procedure, recommended by Acharya Sushruta for Khalitya (hair loss).
2. According to Sushruta, deep Prachhana Karma is administered, followed by the application of Gunjakalka.
3. Three sessions of Prachhana Karma are planned for this research, scheduled on the 0th, 15th, and 30th days.

Procedure

a) Purvakarma

- Explanation of Prachhana Karma procedure and obtaining patient consent.
- Aseptic cleaning of the local area with Triphala Kashaya.

b) Pradhana Karma

- Prachhana Karma performed on the scalp using an insulin syringe.
- Continuous close pricking on the affected scalp area, ensuring proper visualization.
- Pricks should be sufficient to induce blood oozing without being too deep or superficial.
- Dressing with raktashodhana nirharana to stop further bleeding.

c) Paschat Karma

- Patients advised rest and instructed not to use shampoos or oils immediately after the procedure.
- Avoid combing hair, exposure to pollution, sunlight, and consumption of spicy or junk food.

After Prachhana Karma, Gunja Kalka lepa is applied to the treated area.

Gunja Kalka Lepa^[5]

Gunja Kalka Lepa is a herbal paste preparation used in Ayurveda for various therapeutic purposes, including the treatment of hair loss disorders like Khalitya (alopecia). It is prepared from Gunja (*Abrus precatorius*) seeds and other herbal ingredients.

Procedure

1. Gunja seeds are collected and processed according to Ayurvedic principles.
2. The seeds are cleaned, dried, and powdered finely.
3. The powdered Gunja seeds are mixed with other herbal ingredients and formulated into a paste using a suitable liquid medium, such as water or herbal decoctions.
4. The resulting paste, known as Gunja Kalka Lepa, is applied topically to the affected area of the scalp after Prachhana Karma or other hair loss treatments.

Benefits

1. Stimulates hair growth: Gunja Kalka Lepa is believed to nourish the scalp and hair follicles, promoting hair growth and thickness.
2. Strengthens hair: The herbal ingredients in Gunja Kalka Lepa provide essential nutrients to the hair roots, making the hair stronger and less prone to breakage.
3. Improves scalp health: Regular application of Gunja Kalka Lepa can help maintain scalp health by reducing inflammation and irritation.
4. Enhances hair texture: Gunja Kalka Lepa may improve the overall texture and appearance of the hair, making it smoother, shinier, and more manageable.

Overall, Gunja Kalka Lepa is a natural, Ayurvedic remedy that offers potential benefits for individuals struggling with hair loss and related scalp conditions.

CASE HISTORY

Chief Complaint: A 35-year male patient was visited in OPD the patient presented with complaints of hair loss from the scalp, characterized by thinning of hair and the formation of

bald patches. The condition had been progressively worsening over the past several months, causing significant distress to the patient.

Medical History: The patient had no significant medical history of chronic illnesses or systemic disorders. However, the patient reported a family history of hair loss, with both parents experiencing similar symptoms in their middle age.

History of Present Illness: The onset of hair loss was gradual, initially manifesting as increased hair shedding during routine grooming activities. Over time, the patient noticed a progressive reduction in hair density, particularly along the frontal and temporal regions of the scalp. The hair loss was accompanied by occasional itching and mild scalp tenderness.

Social History: The patient's lifestyle was characterized by moderate stress levels due to work-related responsibilities. Dietary habits were generally healthy, with a balanced intake of fruits, vegetables, and proteins. However, the patient admitted to occasional episodes of emotional stress and irregular sleep patterns.

Selection Criteria

Patients suffering from Khalitya or Alopecia Areata were selected from the Shalya OPD and IPD sections of the hospital.

Inclusion Criteria

1. Patients primarily complaining of Khalitya or Alopecia Areata from the Shalya OPD.
2. Patients diagnosed with Khalitya, regardless of occupation, religion, or prakruti.
3. Patients of both sexes aged between 30-70 years.

Exclusion Criteria

1. Patients deemed unfit for the Prachhan karma procedure.
2. Patients diagnosed with conditions such as Alopecia Totalis, Tinea Capitis, or Traction Alopecia.
3. Patients undergoing chemotherapy or suffering from HIV, Tuberculosis, or any form of Carcinoma were excluded.

Criteria for Patient Selection: Patients exhibiting signs and symptoms of Khalitya or Alopecia Areata, aged between 30-70 years, regardless of occupation, religion, or prakruti, were recruited from the Shalya OPD and IPD sections of the hospital for this study.

Line of Treatment

1. Initial Evaluation

- Thorough examination of the scalp to assess the extent and pattern of hair loss.
- Evaluation of scalp health, including the presence of inflammation, redness, or scaling.
- Assessment of hair quality, texture, and density.

2. Diagnosis

- Based on clinical findings and history, the patient was diagnosed with Khalitya Roga, commonly known as alopecia or hair loss.

3. Treatment Plan

- Prachhana Karma: The patient was scheduled to undergo Prachhana Karma, a para-surgical procedure aimed at promoting hair growth and restoring scalp health.
- Preparation of Gunja Kalka Lepa: A herbal paste formulation containing Gunja seeds and other Ayurvedic herbs was prepared for topical application post-Prachhana Karma.
- Counseling: The patient was counseled on stress management techniques and advised to follow a healthy lifestyle, including a balanced diet and regular exercise.
- Follow-up: Regular follow-up appointments were scheduled to monitor treatment progress and assess treatment efficacy.

4. Procedure

- Prachhana Karma: Three sessions of Prachhana Karma were planned at intervals of 15 days. The procedure involved the application of medicated pastes followed by gentle abrasion to the affected scalp area using an insulin syringe.
- Application of Gunja Kalka Lepa: Following each Prachhana Karma session, Gunja Kalka Lepa was applied topically to the treated area to promote hair growth and scalp healing.

5. Follow-up

- The patient was instructed to avoid shampooing immediately after the procedure and to refrain from using oils or harsh hair care products.
- Lifestyle modifications, including stress reduction techniques and dietary adjustments, were reinforced during follow-up visits.
- Regular monitoring of hair growth and scalp health was conducted during follow-up appointments to assess treatment response.

Criteria of Assessment

The results of the clinical study were assessed based on observations of clinical features. The following parameters were adopted for assessing the response to treatment:

A) Subjective Parameters

1. Keshapatan

- Normal hair loss scored as 0.
- Average hair loss scored as 1.
- Above average hair loss scored as 2.
- Baldness scored as 3.

2. Keshabhumikandu

- No itching scored as 0.
- Itching of the scalp rarely scored as 1.
- Itching off and on scored as 2.
- Continuous itching scored as 3.

3. Kesharukshata

- No dryness scored as 0.
- Dryness of hair to some extent scored as 1.
- Breaking/splitting of hair due to dryness scored as 2.

B) Objective Parameters

1. Visibility of Scalp

- Complete hair growth (75%-100%) scored as 0.
- Moderate partial growth of hair (>50% of affected area) scored as 1.
- Partial growth of hair (>25% of affected area) scored as 2.
- No hair growth in the affected area scored as 3.

2. Hair Pull Test

- Grade 0 (Negative): Normally less than three hairs come out with each pull from each area of the scalp.
- Grade 1 (Positive): More than 3-5 hairs come out with every pull or approximately 10% of pulled hairs come out.

3. Number of Fallen Hairs

- Grade 0: Normal or number of hair fall <10.
- Grade 1: Mild or number of hair falls 11-20.
- Grade 2: Moderate or number of hair falls 21-40.
- Grade 3: Severe or number of hair fall >40.

OBSERVATIONS AND RESULTS

1. Keshapatan

- Before Treatment: Severe hair loss (score of 3).
- After Treatment: Significant reduction in hair loss (score of 1).
- Improvement: Hair loss severity improved by 67%.

2. Keshabhumikandu

- Before Treatment: Frequent scalp itching (score of 3).
- After Treatment: Reduced scalp itching (score of 1).
- Improvement: Scalp itching improved by 67%.

3. Kesharukshata

- Before Treatment: Dry and brittle hair (score of 3).
- After Treatment: Improved hair texture (score of 1).
- Improvement: Hair texture improved by 67%.

4. Visibility of Scalp

- Before Treatment: Extensive scalp visibility due to hair loss (score of 3).
- After Treatment: Reduced scalp visibility (score of 1).
- Improvement: Scalp coverage improved by 67%.

5. Hair Pull Test

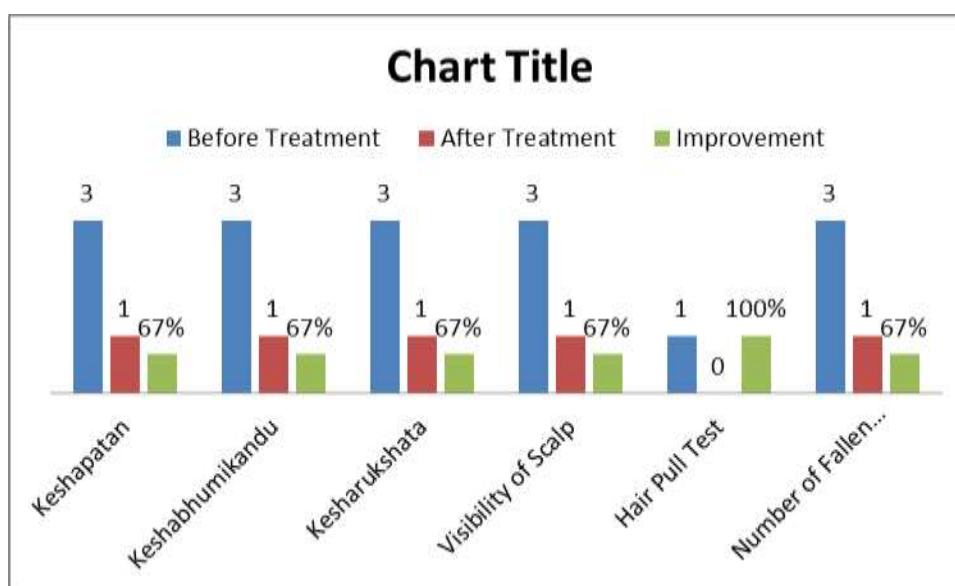
- Before Treatment: Positive result indicating excessive hair shedding (score of 1).
- After Treatment: Negative result indicating reduced hair shedding (score of 0).
- Improvement: Complete improvement observed with no hair shedding.

6. Number of Fallen Hairs

- Before Treatment: Large number of hairs falling out (score of 3).
- After Treatment: Reduced hair fall (score of 1).
- Improvement: Hair fall reduced by 67%.

Overall, the treatment resulted in significant improvements across all assessed parameters, including hair loss, scalp itching, hair texture, scalp coverage, and hair shedding. These findings highlight the effectiveness of the treatment regimen in managing Khalitya and Alopecia Areata.

Assessment Parameter	Before Treatment	After Treatment	Improvement
Keshapatan	3	1	67%
Keshabhumikandu	3	1	67%
Kesharukshata	3	1	67%
Visibility of Scalp	3	1	67%
Hair Pull Test	1	0	100%
Number of Fallen Hairs	3	1	67%



DISCUSSION

The study, albeit informative, presents its findings based on observations from a single patient, which limits the generalizability of the results. While the observed improvements in hair health and overall well-being are promising, conducting similar studies with larger sample sizes is essential to validate the efficacy of the treatment regimen across diverse patient populations.

- 1. Treatment Efficacy:**^[6] Despite the study's limitations, significant improvements were observed in various clinical parameters associated with hair loss, indicating the potential effectiveness of Prachhana Karma with Gunja Kalka Lepa in managing Khalitya Roga and Alopecia Areata.
- 2. Holistic Approach:** The holistic nature of the treatment regimen aligns with Ayurvedic principles, addressing underlying imbalances and promoting hair growth. This approach

offers an alternative to conventional therapies, emphasizing non-invasive interventions and patient-centered care.

3. **Patient Satisfaction:** While the study was limited to one patient, the observed improvements likely had a positive impact on the patient's quality of life. Enhanced hair growth and reduced hair loss can alleviate the psychological distress associated with hair loss disorders, improving self-esteem and overall well-being.
4. **Clinical Relevance:** The findings underscore the potential of Ayurvedic interventions in managing hair loss disorders. However, further research involving larger sample sizes and rigorous study designs is warranted to confirm the efficacy of the treatment regimen and establish its clinical relevance conclusively.
5. **Future Directions:** Future studies should aim to replicate these findings in larger cohorts, considering diverse patient demographics and follow-up periods. Exploring the mechanisms of action underlying Prachhana Karma and Gunja Kalka Lepa could enhance our understanding of their therapeutic effects and guide personalized treatment approaches.
6. **Limitations:** The study's main limitation is its small sample size, which precludes definitive conclusions about the treatment regimen's efficacy. Studies with larger sample sizes and control groups are needed to address this limitation and provide robust evidence for the treatment regimen's effectiveness.

Mode of Action^[7]

Prachhana Karma, accompanied by Gunja Kalka Lepa, operates through multifaceted mechanisms rooted in Ayurvedic principles, aiming to address the underlying imbalances contributing to hair loss disorders such as Khalitya Roga and Alopecia Areata.

1. **Dosha Balancing:** According to Ayurveda, hair loss results from the vitiation of Pitta and Vata doshas, with subsequent involvement of Kapha and Rakta doshas. Prachhana Karma facilitates dosha equilibrium by promoting the elimination of accumulated toxins (ama) and restoring the body's natural balance.
2. **Stimulation of Hair Follicles:** Prachhana Karma involves the application of medicated pastes followed by gentle abrasion, which stimulates the scalp and hair follicles. This stimulation enhances blood circulation to the scalp, delivering vital nutrients and oxygen to the hair roots, thereby promoting hair growth.
3. **Anti-inflammatory Effects:** Gunja Kalka Lepa, composed of herbal ingredients like Gunja seeds and other Ayurvedic herbs, exhibits potent anti-inflammatory properties. By

reducing scalp inflammation and irritation, the lepa creates a conducive environment for hair follicle regeneration and growth.

- 4. Nourishment and Strengthening:** The herbal constituents of Gunja Kalka Lepa nourish the scalp and hair follicles, providing essential nutrients that promote hair strength and resilience. This nourishment helps prevent hair breakage and enhances hair texture, resulting in healthier and more vibrant hair.
- 5. Immune Modulation:** In the case of Alopecia Areata, believed to be an autoimmune condition, Gunja Kalka Lepa may modulate the immune response, thereby preventing further damage to hair follicles. By regulating immune activity, the lepa may help arrest hair loss and promote hair regrowth in affected individuals.
- 6. Psychological Benefits:** Beyond its physiological effects, the holistic approach of Prachhana Karma with Gunja Kalka Lepa offers psychological benefits. Improvements in hair health and appearance can boost self-confidence and overall well-being, reducing the psychological distress associated with hair loss disorders.
- 7. Sustainable Effects:** Unlike some conventional treatments that offer temporary relief, the holistic nature of Ayurvedic interventions aims for long-term results. By addressing the root causes of hair loss and promoting overall health and vitality, Prachhana Karma with Gunja Kalka Lepa may offer sustainable solutions for individuals struggling with hair loss.

In conclusion, while the study offers valuable insights into the potential efficacy of Prachhana Karma with Gunja Kalka Lepa in treating hair loss disorders, further research is needed to validate these findings in larger, more diverse patient populations. Conducting well-designed studies with rigorous methodologies will enhance our understanding of Ayurvedic interventions and their role in managing hair loss effectively.

Clinical Photographs



Prachhan Karma on Khalitya patient

**Before Treatment****After treatment**

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