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EFFICACY AND SAFETY OF KESHOHILLS TABLET IN MILD TO MODERATE HAIR FALL: AN OPEN-LABEL CLINICAL STUDY

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ABSTRACT

Background: Hair fall ("Khalitya" in Ayurveda) is a common condition influenced by lifestyle, diet, stress, systemic diseases, and environmental factors. Ayurvedic herbal formulations are traditionally used for hair health. Keshohills tablet is a polyherbal formulation containing botanicals with reputed benefits for hair growth, scalp health, and dandruff reduction. **Objective**: To evaluate the efficacy and safety of Keshohills tablet in adults with mild to moderate hair fall. **Methods**: This open-label, single-arm, clinical trial enrolled 35 participants aged 21–45 years with active hair fall. Participants received Keshohills tablets orally for 60 days. Primary endpoints included hair fall reduction (60-Second Hair Comb Test) and dandruff improvement (Adherent Scalp Flaking Score, ASFS). Secondary endpoints included changes in scalp itching and safety assessments. Evaluations were conducted at baseline, Day 15, Day 30, Day 45, and Day 60. Data were analyzed using statistical test. **Results**: Keshohills tablet significantly reduced mean hair fall from 2.67 ± 0.48 to 1.00 ± 0.00 ($p < 0.0001$; 62.5% improvement). ASFS scores decreased from 5.51 ± 1.71 to 0.18 ± 0.58 ($p < 0.0001$; 96.8% improvement). Scalp itching reduced by 100% by Day 60, with the majority of improvement observed by Day 45. No adverse events were reported. **Conclusion**: Keshohills tablet was well tolerated and effective in reducing hair fall, dandruff, and scalp itching in participants with mild to moderate hair fall. Early resolution of itching suggests anti-inflammatory and scalp-conditioning properties preceding hair retention benefits.

KEYWORDS: Alopecia, Hair fall, Dandruff, Ayurveda, Keshohills tablet.

INTRODUCTION

The incidence of "Khalitya" (hair fall) is rising globally, largely due to lifestyle changes, dietary imbalances, stress, systemic diseases, and environmental factors. Hair fall is a widespread condition affecting both sexes globally, often leading to cosmetic and psychological concerns.

Management of hair fall is multifactorial and clinically challenging. While no universal cure exists, a variety of treatments are used depending on the underlying cause. Ayurvedic formulations have historically been used to improve hair health, prevent dandruff, and reduce premature greying. However, clinical evidence supporting their use remains limited.

This study was designed to evaluate the safety and efficacy of a polyherbal Ayurvedic preparation—Keshohills tablet—in patients with mild to moderate hair fall.

AIM AND OBJECTIVES

Primary Objective: To assess the safety and efficacy of Keshohills tablet in patients with mild to moderate hair fall.

MATERIALS AND METHODS

Study Design

This was an open-label, single-arm, prospective clinical study conducted.

Participants

A total of 35 participants aged 21–45 years with active hair fall were enrolled. Written informed consent was obtained from all participants prior to study initiation.

Inclusion Criteria

- Age 21–45 years
- Willingness to provide written informed consent and comply with study protocol
- Active hair fall and premature greying of hair

Exclusion Criteria

- Pre-existing scalp diseases other than hair fall
- Concomitant medications/treatments affecting hair (e.g., minoxidil, chemotherapy)
- Recent use of hair dyes, styling tools, or hair perming
- Alopecia areata or other unusual causes of hair loss/balding
- Scalp scarring or history of hair transplantation
- Systemic/cutaneous malignancy or immune compromised state
- Pregnancy or lactation
- Systemic steroid use in the last 2 months
- Participation in another clinical trial within 12 weeks prior to screening

Intervention

All 35 eligible participants received Keshohills tablets orally for 60 days. The formulation consists of standardized herbal extracts and powders (Table 4).

Outcome Measures

Primary Endpoints

1. Hair fall reduction – Assessed using the 60-Second Hair Comb Test.
- >150 hairs lost = Poor (Score 3)
- 100–150 hairs = Fair (Score 2)
- 50–100 hairs = Good (Score 1)

2. Dandruff reduction – Assessed using the Adherent Scalp Flaking Score (ASFS), evaluated across 8 scalp zones on a 0–10 scale.

Secondary Endpoints

- Scalp itching (subjective assessment)
- Safety (adverse events monitoring, tolerability)

Statistical Analysis

Data were expressed as mean ± standard deviation (SD). Changes from baseline to Day 60 were analyzed using the Wilcoxon signed-rank test. A p-value < 0.05 was considered statistically significant.

RESULTS

Hair Fall Reduction

Table 1: Hair Fall Reduction from Baseline to Day 60.

Parameter	Mean (BT)	Mean (AT)	SD (BT)	SD (AT)	Wilcoxon W	p-value	% Effect	Result
Hair Fall	2.67	1.00	0.48	0.00	-6.092	0.00001	62.5%	Significant

Table 2: Percentage Change in Hair Fall over Time.

Day	Mean ± SD	% Change
0	2.67 ± 0.48	0.0%
15	2.36 ± 0.48	11.6%
30	1.78 ± 0.42	33.3%
45	1.24 ± 0.43	53.6%
60	1.00 ± 0.00	62.5%

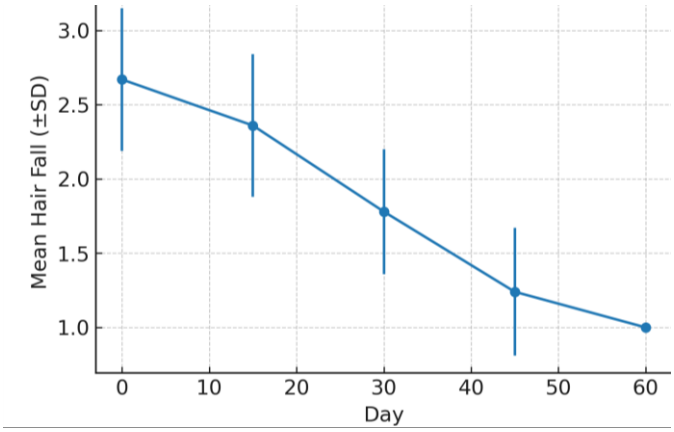

Figure 1: Percentage change in hair fall over time.

Scalp Itching

Table 3: Percentage Change in Scalp Itching.

Day	Mean ± SD	% Change
0	2.31 ± 0.47	–
15	2.09 ± 0.67	9.6%
30	1.27 ± 0.50	45.2%
45	0.93 ± 0.25	59.6%
60	0.00 ± 0.00	100%

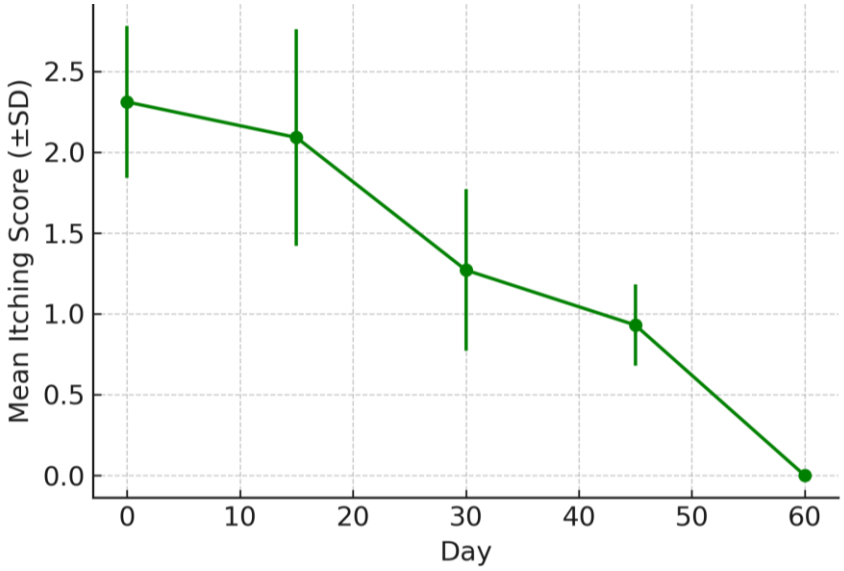

Figure 2: Percentage change in scalp itching over time.

Dandruff Reduction

ASFS scores significantly decreased from baseline (5.51 ± 1.71) to Day 60 (0.18 ± 0.58), representing a 96.8% improvement ($p < 0.0001$).

Composition of Keshohills Tablet

Table 4: Herbal Composition of Keshohills Tablet.

Latin Name	Common Name	Part Used	Quantity (mg)	Reference	Reported Actions
Emblica officinalis	Amlaki Ghana	Fruit	135	Bh PN 10	Hair tonic, antioxidant, hepatoprotective, prevents premature greying
Centella asiatica	Mandukparnee Ghana	Whole Plant	135	Bh PN 448	Improves circulation, anti-stress, promotes hair growth
Eclipta alba	Bhrungraj Ghana	Whole Plant	135	Bh PN 414	Prevents hair loss, promotes growth
Aloe indica	Kumari Swaras	Leaf	75	Bh PN 404	Prevents hair loss, anti-allergic, wound healing
Trigonella foenum-graecum	Methi Powder	Seeds	70	Bh PN 37	Prevents premature greying, dandruff control, immune-modulatory
Eclipta alba	Bhrungraj Bhavana	Whole Plant	68.75	Bh PN 414	Nourishes scalp, promotes hair growth

DISCUSSION

This open-label clinical study demonstrated that Keshohills tablet is effective in reducing hair fall, dandruff, and scalp itching within 60 days of treatment. Hair fall decreased progressively, achieving a 62.5% reduction by Day 60. Scalp itching resolved completely by Day 60, with substantial improvement observed as early as Day 45.

Clinical observations indicate that itching resolves earlier than hair fall, with most relief achieved by Day 45, while hair fall shows gradual but sustained improvement. This suggests the therapy first acts on inflammatory factors (*kandu*) before strengthening follicles. Declining SD values for both itching and hair fall further confirm consistent therapeutic responses over time.

Classical texts describe *kandu* as linked to *pitta-kapha* aggravation (Suśruta Saṃhitā, Nidānasthāna 13), while *khalitya* (hair fall) is attributed to *vāta-pitta* vitiation leading to follicular depletion (Suśruta Saṃhitā, Nidānasthāna 13/33). Early itching relief reflects the *shamana* and *shothahara* effects of treatment, whereas progressive hair fall reduction aligns with the *rasāyana* and *keshya* action of drugs like *bhringaraja*, *amla*, and *yaṣṭimadhu* (Caraka Saṃhitā, Cikitsāsthāna 26/84; Bhāvaprakāśa, Keshya varga).

Thus, the dual-phase response—rapid itching relief followed by steady hair retention—supports the Ayurvedic principle of initial *doṣa-praśamana* followed by *dhātu-prasādana*, emphasizing the need for continued therapy to restore scalp health and hair vitality.

Limitations: The study was open-label without a control group, and the sample size was relatively small. Longer-term randomized controlled trials are warranted.

CONCLUSION

Keshohills tablet was found to be safe and effective in the management of mild to moderate hair fall. It significantly reduced hair fall, dandruff, and scalp itching over study period, with no reported adverse effects. These findings support the potential role of Ayurvedic polyherbal formulations in hair loss management.

Conflict of Interest

None declared.

Source of Support

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