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Homeopathic treatment of cosmetic product-induced hair fall in young adults: A prospective case series

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Abstract

Background: Hair fall is a frequent complaint among young adults, and regular use of chemical hair products (shampoos, dyes, straighteners) is an under-recognised contributor. Clinical work on homeopathy for this specific problem is scarce. **Objectives:** This study was conducted to evaluate the effect of individualised homeopathic medicine on hair fall linked to cosmetic product use, and to evaluate change in hair density. **Materials and Methods:** A prospective single-arm case series was conducted at the outpatient department, peripheral clinics and camps of Motiwala Homoeopathic Medical College, Nashik. Thirty participants aged 15–35 years with diffuse or patchy hair fall after cosmetic product use were enrolled by convenience sampling with written informed consent. Medicines were individualised on the totality of symptoms, and participants were reviewed at 15–25-day intervals for six follow-ups. Outcomes were daily hair count (DHC), a 9-point visual analogue scale (VAS), pull test and Ludwig/Norwood grade, analysed with the paired t-test. **Results:** 30 participants (26 women, 4 men; mean age 23.0 ± 3.4 years), 24 (80%) blamed shampoos and 4 (13.3%) chemical straightening or colouring. DHC fell from 226.0 ± 74.7 to 81.0 ± 32.0 (mean reduction 145.0; 95% CI 123.7 to 166.3; $P < 0.001$). VAS fell from 3.53 ± 1.17 to 1.77 ± 0.63 (mean reduction 1.77; 95% CI 1.33 to 2.20; $P < 0.001$) and pull-test count from 6.27 ± 1.26 to 2.30 ± 1.51 (mean reduction 3.97; 95% CI 3.44 to 4.49; $P < 0.001$). Every participant had at least a 40% fall in DHC. Five of six participants with grade/stage 2 thinning moved to grade/stage 1. *Natrum muriaticum* (26.7%) and *Lycopodium* (16.7%) were the most prescribed medicines, together 43.3%. **Conclusion:** The present study gives positive lead in the management of hair fall with Individualised homoeopathic medicine. controlled trials are furthur warranted.

Keywords: Cosmetic-induced hair fall, Hair cosmetics, Homeopathy, Pull test, Telogen effluvium

Introduction

Losing 50–100 hairs a day is part of the normal hair cycle. When shedding clearly exceeds regrowth, the person experiences excessive hair fall, which can follow heredity, hormonal change, stress, ageing, illness or drug treatment.[1,2] In young people it carries a heavy emotional and social burden, affecting appearance, confidence and mental well-being.[1,10]

Hair cosmetics are chemical preparations meant to cleanse, colour, style or condition the hair and scalp. Many contain oxidising agents, ammonia, sulfates, preservatives, fragrance and sensitisers such as p-phenylenediamine.[3,4] Repeated exposure may weaken the hair shaft, irritate the scalp, generate oxidative

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stress in follicles and push follicles early into the resting (telogen) phase.[4,5] A national outbreak of alopecia linked to a hair-relaxing product and reports of chemically induced cosmetic alopecia in young women show that this is a real clinical problem.[6,7]

In Indian dermatology practice, telogen effluvium and female pattern hair loss are among the leading diagnoses, and young to middle-aged women are most often affected.[8] Because patients commonly blame stress or diet, the cosmetic cause often goes unrecognised.

Conventional first-line options such as minoxidil and finasteride must be used for long periods, may cause adverse effects, and hair loss frequently returns once they are stopped.[2] This has increased interest in complementary approaches. Homoeopathic literature on hair loss consists mainly of case reports, narrative reviews and a case series on external application of a mother tincture, and the authors of these reports themselves call the evidence weak.[9,12,13,15,16] To the best of our knowledge, no clinical study has examined homoeopathic treatment of hair fall specifically caused by cosmetic products. The present study was undertaken to address this gap.

Materials and Methods

Study design and setting

A prospective, single-arm observational case series was carried out at the outpatient department, peripheral outpatient clinics and peripheral camps of Motiwala (National) Homoeopathic Medical College and Hospital, Nashik. [6 Months] Ethical approval was obtained from the Institutional Ethics Committee [2/1/2026]. The study followed the principles of the Declaration of Helsinki.

Participants

Convenience sampling was used to enroll 30 participants. Written informed consent (English/Marathi) was taken from every participant.

Inclusion criteria

Participants aged 15-35 years, irrespective of sex, who presented with diffuse or patchy hair fall beginning within 4-6 weeks of using a cosmetic hair product were include in the study. Eligible participants had hair fall exceeding 100 hairs per wash, accompanied by a positive hair pull test. Participants were also required to be willing to discontinue or limit the suspected cosmetic hair product during the study period and provide written informed consent.

Exclusion criteria

Participants who were pregnant or lactating, those with scarring alopecia, alopecia areata totalis, or alopecia universalis, and those whose hair loss was primarily attributable to chemotherapy, systemic disease, or nutritional deficiencies were excluded from the study

Case taking and intervention

Every participant underwent detailed homoeopathic case taking on a structured case record covering the presenting complaint, past and family history, personal history, mental and physical generals, scalp and hair examination, and the cosmetic products used. The totality of symptoms was framed, a miasmatic assessment was made, and repertorisation using the Synthesis Repertory from Radar Opus[11] and remedy differentiation

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were used to select the medicine. Potency or medicine was repeated, raised or changed according to response. Individualised homeopathic medicines and Sham were given according to the requirement. All participants were advised to switch to a mild herbal shampoo, take a protein-rich diet and exercise regularly (Adherence of it neither traced nor verified).

Follow-up and outcome measures

Participants were reviewed at intervals of 15–25 days for six follow-up visits. Pull test and hair counts were repeated at every visit.

Primary outcome: change in cosmetic-induced hair fall, measured by (a) daily hair count (DHC), the hairs the participant collected and counted each day, (b) a 9-point visual analogue scale (VAS) of shedding, scored against reference photographs of shed-hair piles (long and short hair; score 1 about 10 hairs to score 9 about 700 hairs), and (c) the pull test, the number of hairs removed on gentle traction. A fall of at least 30% in DHC was taken as a meaningful response.

Secondary outcome: change in hair density, judged by the Ludwig grade (females) or Hamilton–Norwood stage (males).

Statistical analysis

Continuous variables are given as mean ± SD and categorical variables as number (percentage). Baseline and final values of DHC, VAS and pull test were compared with the paired t-test (two-tailed, $\alpha = 0.05$) and the 95% confidence interval of the mean change; the Wilcoxon signed-rank test was used as a check because of the small sample. Effect size is reported as the mean change divided by the SD of the change (d_z). Ludwig and Norwood grades were tabulated before and after treatment.

Results

Thirty participants with cosmetic product-induced hair fall were treated and reviewed at six follow-ups, and all 30 were analysed. 30 participants (26 women, 4 men; mean age 23.0 ± 3.4 years), 24 (80%) blamed shampoos and 4 (13.3%) chemical straightening or colouring. DHC fell from 226.0 ± 74.7 to 81.0 ± 32.0 (mean reduction 145.0; 95% CI 123.7 to 166.3; $P < 0.001$). VAS fell from 3.53 ± 1.17 to 1.77 ± 0.63 (mean reduction 1.77; 95% CI 1.33 to 2.20; $P < 0.001$) and pull-test count from 6.27 ± 1.26 to 2.30 ± 1.51 (mean reduction 3.97; 95% CI 3.44 to 4.49; $P < 0.001$). Every participant had at least a 40% fall in DHC. Five of six participants with grade/stage 2 thinning moved to grade/stage 1. (Table 1)

Table 1: Baseline characteristics

Variable	Value (n = 30)
Age (years), mean ± SD (range)	23.0 ± 3.4 (19–34)
Sex, n (%) female / male	26 (86.7) / 4 (13.3)
Product implicated, n (%): shampoo with or without conditioner	24 (80.0)
Chemical straightening or colouring	4 (13.3)

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Variable	Value (n = 30)
Herbal powder or henna with shampoo	2 (6.7)
Daily hair count (DHC), mean ± SD	226.0 ± 74.7
VAS (1–9), mean ± SD	3.53 ± 1.17
Pull test (hairs), mean ± SD	6.27 ± 1.26
Ludwig/Norwood grade 1 / grade 2, n (%)	24 (80.0) / 6 (20.0)

Hair fall outcomes

All three measures improved significantly (Table 2). DHC fell in every participant, by a mean of 63.5% (range 40–80%), so all 30 met the 30% response target and 28 fell by 50% or more. The pull test fell in all 30; it reached 2 hairs or fewer in 16 (53.3%) and zero in 6 (20%). VAS fell in 26 participants, stayed unchanged in 3 and rose by one point in 1 (a woman with a history of straightening and keratin products, whose improvement was recorded as slow). The Wilcoxon test agreed with the t-test for all three measures ($P < 0.001$).

Table 2: Change from baseline to final follow-up (n = 30)

Variable	Baseline	Final	Mean change (SD)	% change	95% CI	t (df 29)	P	Effect size (dz)
DHC	226.0 ± 74.7	81.0 ± 32.0	145.0 (57.2)	64.2	123.7 to 166.3	13.89	<0.001	2.54
VAS (1–9)	3.53 ± 1.17	1.77 ± 0.63	1.77 (1.17)	50.0	1.33 to 2.20	8.31	<0.001	1.52
Pull test (hairs)	6.27 ± 1.26	2.30 ± 1.51	3.97 (1.40)	63.3	3.44 to 4.49	15.50	<0.001	2.83

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Figure 1 Graphical representation of changes in daily hair count before and after treatment

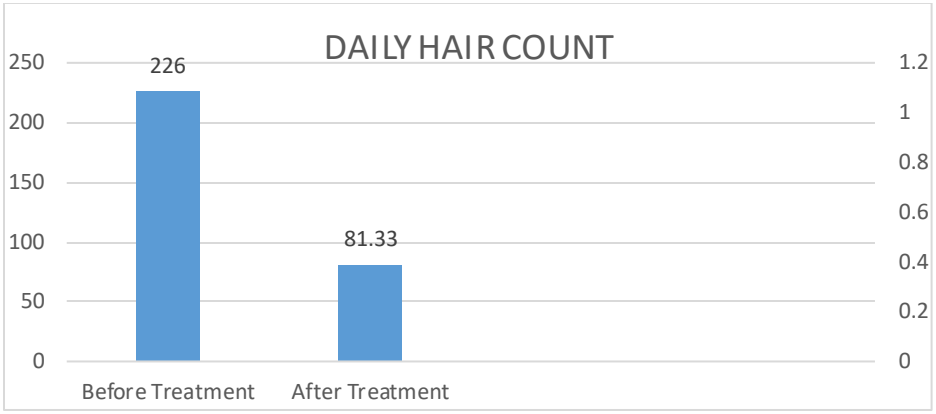


Figure 2 Graphical representation of changes in vas before and after treatment

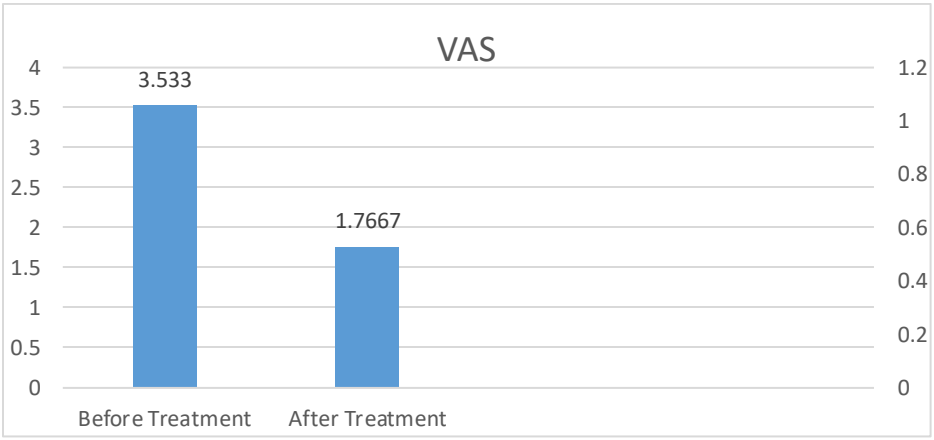
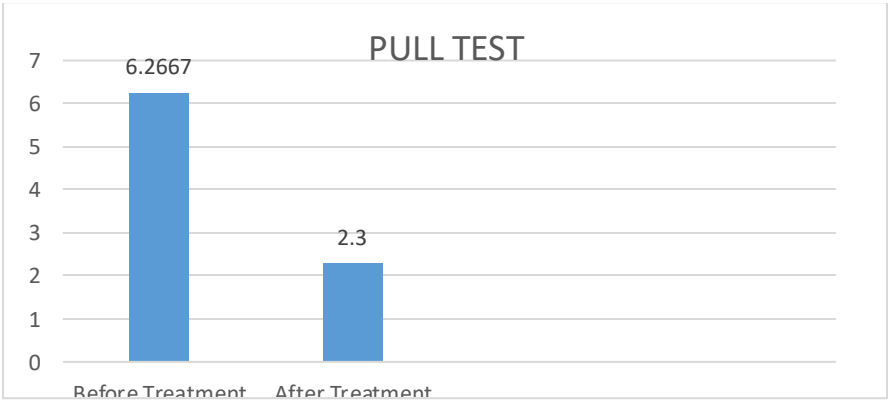


Figure 3 Graphical represantation of changes in pull test before and after treatment



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Table 3: Name of medicine with frequency of utilization

HOMOEOPATHIC MEDICINE	NO. OF PATIENTS	%
Nat mur	8	26.67 %
Lycopodium	5	16.67 %
Phosphorus	3	10%
Pulsatilla	2	6.67%
Calc carb	1	3.33%
Staphysagria	1	3.33%
Silicea	1	3.33%
Arsenicum alb	1	3.33%
Dulcamara	1	3.33%
Ignatia	1	3.33%
Carcinosin	1	3.33%
Sulphur	1	3.33%
Phosphoric acid	1	3.33%
Lecithinum	1	3.33%
Nux vomica	1	3.33%
Kali carb	1	3.33%
TOTAL	30	100%

Hair density

Six participants had grade or stage 2 thinning at baseline (five women Ludwig grade 2, one man Norwood stage 2). Five of them improved to grade or stage 1; one woman stayed at grade 2. No participant worsened. The other 24 were at grade or stage 1 and remained there. Quantitative hair density was not measured.

Discussion

In this single-arm series of 30 young adults, hair fall after the use of cosmetic hair products fell on every objective measure after individualised homoeopathic treatment. Daily hair count dropped by about two-thirds, the pull test by a similar proportion, and the shedding score by half, with large effect sizes; every participant reached the 30% response target, and five of six with early thinning moved up a grade.

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Cosmetic products as the trigger**:** Most participants linked the start or worsening of shedding to a change of shampoo or to a chemical hair procedure, and shampoos were named in 80% of cases. This fits reports that harsh cleansing agents, oxidising dyes and relaxers can irritate the scalp, damage the shaft and push follicles into early shedding.[3,4,5,6,7] Without patch testing or trichoscopy, however, the link in each person remains a clinical judgement.

Individualisation**:** Sixteen different medicines were used for one uniform complaint, which reflects selection on each person's mental and physical generals rather than on the diagnosis. *Natrum muriaticum* and *Lycopodium clavatum* made up 43% of prescriptions, and *Pulsatilla nigricans* and *Phosphorus* followed. Earlier homoeopathic reports on hair loss are mostly case reports, narrative reviews and a case series of an externally applied mother tincture, and none addressed cosmetic-induced hair fall, so direct comparison is not possible.[9,12,13,15,16]

How far the results can be pushed**:** Improvement was gradual across visits, as expected for the hair cycle. But this design cannot separate the effect of the medicine from other explanations. Shedding after a chemical insult often settles by itself once the cause is removed, and all participants were told to change to a mild shampoo, eat more protein and exercise, so the product change alone may explain part of the gain. Placebo response, regression to the mean and the use of adjuvant medicines and Sac lac between doses may also have contributed.

Limitations

The sample is small, drawn by convenience at one institution, and has no control group or blinding. Hair counts and the shedding scale partly rely on participant reports. Follow-up was about 90 days. No trichoscopy, patch test or laboratory work-up (for example ferritin or thyroid tests) was documented, so other causes of hair loss are not fully excluded. The Ludwig and Norwood scales are made for pattern hair loss and are blunt tools for diffuse shedding, and quantitative hair density was not measured. Potencies and repetition were individualised and are not standardised.

Conclusion

After individualised homoeopathic treatment, together with advice on safer hair care, 30 young adults with cosmetic product-induced hair fall showed lower hair counts, pull-test counts and shedding scores, and most thinning grades improved. Because there was no control arm and the shampoo was changed in everyone, these findings generate a hypothesis and do not prove that the medicines caused the change. Randomised or comparative studies with larger samples, standardised dosing and objective hair measures such as trichoscopy are warranted.

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Conflicts of interest

Nil

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