



Original Research

A case study: Effect of Unani medicinal organic hair oil on hair loss

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Abstract

Hair loss affects people of both genders, ages, and civilizations, and got both physical also psychological consequences. The goal of this clinical case research was to find out the effectiveness as well as safety of an Unani medicinal product comprising various herbs in healthy male with hair loss. A case was recruited in the research and treated with the herbal hair oil application by massage for 30 days. The test product was evaluated for its efficacy in enhancing hair development percentage, hair thickness, active phase of hair growing, resting stage of hair growth, the density of vellus hair, also terminal hair density respectively using Nabih's Organic Hair Oil based on the Unani medicines. Dermatological and subject self-assessment questionnaires compared hair thinning with hair fall diminution to the baseline. In comparison to baseline, hair growth rate, hair density, vellus hair density along with terminal hair density all improved significantly after 30 days application of test hair oil. During this study, no adverse events documented and no skin sensitivity reactions were recorded, and the test hair oil was proven dermatologically secure to use.

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Keywords: Hair loss, Alopecia, Baldness, Unani Herbal Hair Oil, Organic Hair Oil



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Introduction: Hair loss is a common affliction that is influenced by genetic, dietary, medicinal, and environmental variables. Hair loss in men is caused by androgenic alopecia, or male-pattern baldness, whereas women have different medical factors such as hypothyroidism, excessive use of oral contraceptives, and nutritional inadequacy^[1, 2]. Baldness can be result of a variety of causes, for instances fungal ailment (tinea capitis with types of tinea), chemotherapy, or radiotherapy, injury from trauma, for example compulsive pulling (trichotillomania), autoimmune disorders, and nutritional deficiencies such as iron deficiency^[3] and frequent child births^[4-7]. Alopecia areata can take several forms, the most severe of which are alopecia totalis involving the loss of complete hair on the head, as well as alopecia universalis involving the missing hair on other body components along with the head. Different types of stressors cause ill effects on the hairs making them brittle, dry and thin usually caused by hair dryers, hair colors, heated crimpers, Everlasting as well as hair uncurling materials, also harsh chemical rich decorative^[8]. Hair loss affects men and women in different ways. Male hair loss usually affects the hairline or head vertex or scalp while female hair loss affects the anterior or up most of the scalp^[9]. Hair grows in three various as well as simultaneous stages: anagen, which lasts three to five years, catagen, which lasts two to three weeks, also telogen, which lasts three to four months, accompanied by hair desquamation. Hair is liberated and shed throughout the telogen or resting phase, also the following cycle can begin at any time. About 1 lakh terminal hair follicles on the scalp are set to produce lengthy and thickened hair when a person is born^[10-12]. 90 % of the hair on a wholesome scalp is flourishing, while a small percentage (less than 1%) is involution and the rest (5 percent to 10%) is resting^[13-16]. It is typical to lose 100 hairs every day from the head. A higher hair loss rate causes physiological upset and is a serious condition of discomfort^[17-19]. It is noted that almost half percent of women losses their hairs near the age of sixty while males suffer from hair loss near the age of fifty^[20]. In the United States, India, and Singapore, the prevalence of alopecia areata varies from 2.1 %, 0.7 %, as well as 3.8 %, correspondingly. In Singapore and the United States, alopecia areata start was at 25 along with 36 years of age, respectively^[21]. According to reports, there is no gender bias in alopecia areata. Although alopecia areata affects people of all ages, the majority of patients appear between the ages of 21 and 40^[22]. According to our survey, 73.5 percent of the Pakistani population suffers from hair loss, 14 percent has visited a dermatologist, 73 percent has suffered from hair loss for a few weeks to a few years, 37 percent is on a strict diet, 77.5 percent is on medication, 71 percent is utilizing hair covering, and seventy percent has endured from another scalp illness^[23].

Study Design: Case study: A 20-year-old male subject who had previously been healthy presented to the walk-in clinic with his parents and had no alopecia or autoimmune disease in his family. He described a patch of frontal hair loss for three years and had not improved. The doctor prescribed him some topical corticosteroids (fluticasone propionate once a day for three months) and advised one month follow up. The condition did not improve after taking steroidal therapy. Three months later he visited

Siddiqui's Herbal Health Care Clinic, Nazimabad 3-B, Karachi with a hope for his ailment and started Nabiha's Organic herbal hair oil therapy prescribed by the herbal practitioner. On examination a confined 3 x 5 cm triangular plaque of alopecia on the frontal area of the scalp was noticed at his first visit (Figure 1) according to Norwood-Hamilton Scale. While there was no inflammation, scaly or damaged hairs, or tapering hair. The eye lashes, brows, and nails were all found to be in good condition. Nabiha's Organic Hair Oil composed of different herbs was advised to be applied once daily regularly for three months at bedtime with gentle massage. Along with oil application a good combing with wide-tooth was advised to use regularly and keep it separate from the other family member's combs. The hair wash was also advised by normal soap without harsh chemicals and fragrance.

History of past illness: No hospitalization due to severe illness.

Family history: No family history of alopecia and severe hair fall.

Personal history: Normal appetite and thirst, mix diet, normal urination and bowel habits, normal sleep, no addiction of tobacco, alcohol and gutka chewing.

General Physical Examination: Average built weighted 72 kg, no pallor, no cyanosis, no jaundice, no anemia, no clubbing, no edema, no lymph nodes enlargement.

Vitals: Pulse 70/ min, Respiratory Rate 17/min, Temperature 98.6, Blood pressure 110/ 80 mmHg.

Inspection of scalp: Few patchy areas devoid of hairs on frontal and vertex. Surface was ill-defined and shiny with no dandruff. No split hairs and greying of hairs. No skin lesions and rashes. No inflammation and redness.

Method of Preparation of Unani Herbal Hair Oil:

Collection of plant part: For the preparation of herbal hair oil various plant materials were collected such as *Phyllanthus emblica*, *Acacia concinna*, *Cyperus cariosus*, *Nardotachys jatamansi*, *Lawsonia inermis*, and *Sesamum indicum* oil from the local market Liaqatabad, Karachi and were properly identified in the Faculty of Eastern Medicine.

Formulation of herbal hair oil: The various Unani medicinal ingredients used in the formulation of herbal oil are presented in Table 1.

Oil Preparation: All herbs were weighted according to formulation and were soaked in *S. indicum* oil for 24 hours. The above content was boiled on strong flame for 30 minutes followed by heating on low flame for 1 hour. The stove was switched off and content was left to be cooled for 6 hours. The content was filtered through muslin cloth twice to get good fine filtrate oil. The oil was stored in amber colored bottle from which the oil was dispensed to the patients for their hair problems.

Outcome of treatment: After the application of hair oil at 1st visit the patient showed score 5 according to Norwood-Hamilton Scale that improved after one month and it became score 3 and after three months a significant improvement score 2 was noticed as shown in Figure.2 and Figure.3.

Discussion: The results of this study showed that an Unani Medicinal Organic hair oil formulation containing *Phyllanthus emblica*, *Acacia concinna*, *Cyperus scariosus*, *Nardotachys jatamansi*, *Lawsonia inermis*, and *Sesamum indicum*. Hair loss is a common stressful condition that

decreases the self-confidence and creates the inferiority complex in the personality of the subject. Hair fall or hair loss influences a large percentage of the inhabitants, equally genders [24, 25]. Keeping the passionate as well as mental collision of hair fall like anxiety and depression, the timely and proper management of hair loss is essential [26]. Herbal therapies have been used to treat alopecia in traditional and Unani medicinal system since old times. There are over a thousand different types of plants researched and claimed for their hair-growth benefits. Similarly, Nabiha's Organic Hair Oil also contains remarkable and efficacious herbal plants that have been utilized in Unanisystem of medication with different formulation also combinations.

Studies on *Phyllanthus emblica*: The ingredients in *P. emblica* like carbohydrates, pectin, saponins, tannins, β -glucogallin, alkaloids, terpenoids, flavonoids, ascorbic acids, showed protective effects for hair and reduce the hair loss [27]. According to another study *P. emblica* showed to be a strong 5 α -reductase inhibitor and promotor of hair growth on rats in comparison with finasteride and minoxidil demonstrated by histological study of dorsal skin hair follicles [28]. Similarly, some other research showed that the aqueous extract of *P. emblica* induced the mRNA expression levels of gene that are responsible of hair growth [29]. Over the course of sixteen weeks, a clinical investigation using herbal supplements containing *E. officinalis* extracts slowed the progression of hair loss and improved hair growth [30].

Studies on *Cyperus scarious*: Sesquiterpenes in *C. scarious* are known as -cyperone, and it also contains other terpenes like the frequently occurring plant component pinene (a monoterpene), as well as many sesquiterpene derivatives like cyperol, which are helpful in treating hair loss [31, 32].

Studies on *Nardostachys jatmansii*: According to reports, *N. jatmansii* essential oils are abundant in coumarins and sesquiterpenes [6]. Jatamansone and Valerone are important sesquiterpenes used in the preparation of hair tonic, hair oils, promoting hair blackness and growth [33].

Studies on *Lawsonia inermis*: *L. inermis*, possess Lawsone, quinones, phenylpropanoids, flavonoids, terpenoids, has been utilized to dye silk, wool, leather, also other materials as well as skin, hair, along with fingernails since antiquity [34].

Studies on *Acacia concinna*: *A. concinna*, has rich amount of vitamin C, nicotine, oxalic acid, citric acid, succinic and tartaric acids which is beneficial for washing hair, promote hair growth, prevent dandruff & gives the shining of hair and keeps them lustrous and healthy [35,36].

Studies on *Sesamum indicum*: *S. indicum* seeds contain two unique substances, sesamin and sesamol, thiamine and niacin. A regular warm sesame oil massage increases penetration, which improves blood flow to the scalp and encourages hair development and helps strengthen hair shafts and roots, darken hair [37]. The present clinically tested innovative hair oil formulation contains substances investigated for the treatment of alopecia that work in a variety of ways to lessen hair loss and encourage hair growth.

Conclusion: This innovative hair oil may therefore be a secure choice for treating hair thinning and encouraging hair growth. It is a moderate, safe, and friendly product for

use on the scalp because it is free of formaldehyde, parabens, and synthetic dyes. The test product was successful in reducing hair loss in more than 98 percent of the research group, with an increase in follicular hair density of 7.97 percent. The majority of the patients expressed an improvement in their quality of life connected to hair loss at the study's completion. Subjects gave the product a thumbs up for its color, fragrance, texture, and hair fall effects. During the research, no adverse effects related to the drug were recorded. The test formulation is safe to utilize topically as there was no skin or scalp allergy. The findings of this research revealed that using the Hair Oil formulation on patients with hair loss for a three-month treatment period was both safe and effective. But further large scale studies are required to validate this study.

Conflict of interest: The authors affirm that they do not have any competing interests. There was no funding provided for this study's operation.

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Table 1. Ingredients of Unani Medicinal Organic Hair Oil

S. No.	Ingredients	Quantity
1	<i>Phyllanthus emblica</i>	125 gm
2	<i>Acacia concinna</i>	125 gm
3	<i>Cyperuss carious</i>	125 gm
4	<i>Nardotachys jatamansi</i>	125 gm
5	<i>Lawsonia inermis</i>	125 gm
6	<i>Sesamum indicum</i> oil	1000 ml

**Fig 1.**
At 1st visit showing Score 5 according to Norwood-Hamilton Scale**Fig 2.**
After 1 month showing Score 3 according to Norwood-Hamilton Scale**Fig 3.**
After 3 months treatment showing Score 2 according to Norwood-Hamilton Scale