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Herbal Hair Oil for the Management of Hair Growth

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ABSTRACT:
Beauty and cosmetic concept is as ancient as mankind and civilization. Cosmetics play a vital role in human life. Herbal cosmetic is one of the most effective areas of cosmetic technology. Herbal cosmetics are developed by the coalition of bioactive ingredients and pharmaceutical products. Herbs are used for the beautification purpose of the body, and preparation of cosmetics, flavoring, and coloring agents. Hair plays a vital role in the personality of humans and we use a lot of cosmetics products for the care of hair.The objective of the present study is to prepare and evaluate herbal hair oil using coconut oil, hibiscus, amla, neem & eclipta alba. The preparation was also subjected to various tests for analysis including moisture content, total ash, acid insoluble ash, water-soluble ash, water-insoluble ash & sulfated ash. Apart from that the formulation is subjected to viscosity, surface tension, pH, acid value etc. Hair fall is a very common phenomenon and a matter of concern whether young or aged. Herbal formulations always have attracted considerable attention because of their good activity and comparatively lesser or nil side effects with synthetic drugs. The synthetic drug has some side effects like local irritation, itching, and burning sensation. Herbal cosmetics are nowadays widely used by the common people because of the concept of fewer side effects and a better safety and security profile.

Keywords: herbal hair oil, dandruff, hair disorder.

I. INTRODUCTION:

Hair being a protective and essential part of the body, it is very crucial to treat problems related to them. Many young people suffer from hair-related problems like hair loss, and dandruff and many treatments are available on the market. Hair loss occurs due to excess exposure of hair to chemicals, dandruff, and disease state of the scalp as well as decreased blood flow. Hair loss is a distressing condition for an increasing number of men and women. Therefore, it is of great importance. to develop new therapies for the treatment of hair loss. it is a dermatologic disorder, and the surge for discovering natural products with hair growth-promoting potential is continuous. Hair loss, or alopecia is a common patient complaint and a source of significant psychological and physical distress.[1]

Natural products in the form of herbal formulations are available in the market and are used as hair tonics, hair promoters, hair conditioners, hair cleansing agents, antidandruff agents as well as for the treatment of alopecia. The traditional system of medicine in India acclaims several herbal drugs for hair growth promotion. Dry dandruff- yeast-like fungus causes this dry type of dandruff, ii) Oily dandruff- is due to excess formation of sebum on the scalp of hair hence to stimulate hair growth and for anti-dandruff activity, it is important to develop novel formulation. Hair care products are used to maintain hair strength and make them healthy In our study, we have found the extract of amla fruits, onion, brahmi, banyan tree root, and fenugreek seeds are useful in treating hair loss.[2] In the traditional Indian system of medicine many plants and herbal formulations are reported for hair growth promotion as well as improvement of quality of hair oils are the hair care formulations applied for treatment of hair disorders such as baldness, aggression of hair, discoloring of hair, hair falling, dryness of hair Herbal hair oils are formulated with herbal extracts in an oil base

1.1 BENEFITS

We live in a polluted world that is not hair-friendly. That is when herbal hair oil comes into practice. Herbal oil is a blend of bhringraj, jatamansi\, amla,

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hibiscus, rosemary, almond, and other herbs. Their benefits are as follow[s]

- It provides natural goodness to hair. Herbal oil contains vitamins and micronutrients which act as a food for hair.
- Hair oil helps in preventing hair loss and fames frizzy hair. Hair ends need special care and herbal oil pampers them throughout their nourishment.
- Regular use of hair oil of hair oils cures the problem of premature grey hair.
- Keeps the scalp hydrated Improves hair growth Prevents dandruff Stress relief.

II . Factors Affecting Hair Health

Several factors affect hair health, including genetics, chemical exposure, lifestyle, smoking, drugs, stress, infection, and menopause. Evidence for some of the influencing factors of hair health has been detailed in this section (Figure 1) [4]

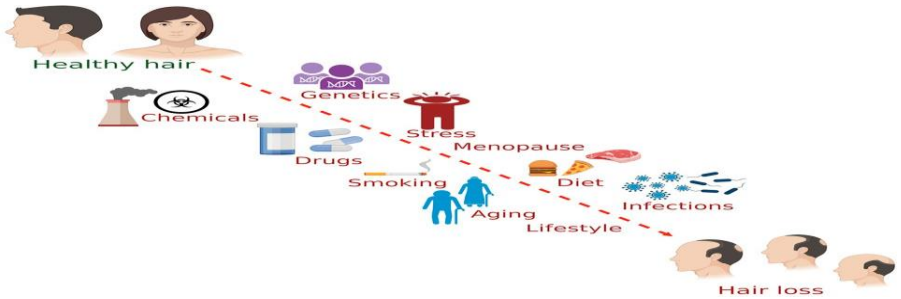

Figure 1. The common factors influencing hair health in humans. (The figure was created usingBioRender.com;

Genetics:
Investigated the association between the expression of androgenic alopecia in male individuals (from the general community) and their family history of androgenic alopecia. They stated that family history and age are the high-risk factors for the onset of male pattern hair loss. Other risk factors might include hair loss in the father and hair loss in the mother or maternal grandfather.[5] studied the association between the family history
of androgenic alopecia in females and the onset of female pattern hair loss in women from the Polish population.[5]

chemical exposure:
Exposure to heavy metals such as mercury and thallium is a highly associated risk factor for alopecia. Studies have evidenced the toxic effect of soft hose chemicals on hair[6-7]

Drugs:
A male (age: 26 years old) started losing hair on the 9th day after consuming G. superba (2 tubers)[8]
A case study reported a child (gender: female; age: 3 years old) with acute colchicine intoxication showed symptoms of multi-system organ failure followed by alopecia, which started on the 2nd week after consuming 20 to 25 pills (a toxic dose of about 0.9 mg per kg)[9].

Diseases or Disorders:
Abnormal skin conditions such as atopic dermatitis, dandruff/seborrheic dermatitis, psoriasis, and tine acapitis affect hair health. The hair samples of atopic dermatitis patients (n = 8; age range = 24 to 25 years old) showed thick scales and torn cuticular edges, which were examined using atomic force microscopy. The altered hair conditions, such as abraded cuticular surface and cuticular breakage observed only in the hair samples obtained from the psoriasis patients [10].

Smoking:
An observational study stated that smoking is associated with premature graying of hair in both men and women and baldness in men. A recent study showed that premature graying and hair loss prevalence is higher in smokers than in nonsmokers[11]

Stress:
Stress is a risk factor for hair loss and inhibition of hair growth. Chronic or acute stress is a primary inducer of hair growth disorder, namely, telogen effluvium; it acts as an aggravating factor for hair growth disorders such as androgenetic alopecia and alopecia. Adrenal glands release stress hormones induced by stress signals. Cortisol is a stress hormone released in humans during stress conditions, and corticosterone is a stress hormone in rodents.[12]

Menopause:

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Chaikittisilpa et al. conducted a cross-sectional study to analyze the prevalence of androgenic alopecia in postmenopausal women (n = 178, age: 50–65 years old) and stated that postmenopausal women had a higher prevalence of androgenic alopecia [13]

The traditional herbal medicinal plant used for the preparation of hair oil[14]

SR. No.	Common Name	Family	Chemical Constituents	Medicinal Uses
1.	Bhringraj	Asteraceae	Alkaloids, Flavoinds, Terpenoids	Prevents hair fall Promotes hair growth Makes hair lustrous Repairs hair damage Treats baldness.
2.	Amala	Phyllanthaceae	Ascorbic acid, Ellagic acid, Gallic acid.	Condition your scalp. Minimize greys Reduce dandruff Promote healthy hair growth. Strengthens the hair roots
3.	Tulsi	Lamiaceae	Eugenol, Linalool, Carvacrol.	Coagent remedy for hair loss Hair loss treatment Strengthening the hair roots Prevent bacterial and fungal infection
4.	Shikakai	Fabaceae	Alkaloids, Tartaric acid, Citric acid.	Makes hair soft and shiny Heals scalp and prevents the agony of the dry scalp Boosts hair growth Delaying greying of hair Works as a natural hair cleanser
5.	Hibiscus	Malvaceae	Polyphenols, Anthocyanins	Stops hair loss, Prevent premature graying, Thicken hair and add volume, Treat dandruff
6.	Coconut	Arecaceae	Lauric acid, muriatic acid, caprylic acid	Masks hair, Moisturizes hair Seal hair, Makes hair look shinier.
7.	Neem	Meliaceae	Nimbin, Salannin	Cure scalp problems, Makes lustrous and healthy hair, Promotes thicker, stronger hair growth, Prevents premature greying, Cooling and soothing effect
8.	Onion	Amaryllidaceae	Methanol, acetic acid	Treats dandruff, Inhibits hair thinning, Fights scalp infection Slows down premature greying Nourishes dry or brittle hair
9.	Alovera	Aphodelaceae	Chromone, anthraquinone	Strengthen and repair hair strands, Deep clean oily hair Calm an itchy scalp
10.	Shatavari	Asparagaceae	Mucilage, alkaloids.	Smooth the scalp, Promote hair growth, Strengthen the roots of the hair, Maintain color and luster
11.	Brahmi	Plantaginaceae	Bacosides	Elimination of dandruff, Cleanses scalp, Gives soothing effect, Reduction of hair loss, Prevention of split ends
12.	Vetiver	Poaceae	Vetiverol, vetivone, benzoic acid	Flavouring agents Nervine tonic

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13.	Henna	Lythraceae	Lawsone, anthraquinones, glycosides	Antifungal and antimicrobial properties. Improving hair elasticity, Reducing premature greying of hair
14.	Liquorice	Fabaceae	Glabridin, Enoxolone	Moisturizes the scalp., Helps with hair growth. , Prevents premature baldness. , Effective hair treatment.
15.	Jatamansi	Caprifoliaceae	Maaliol, Seychelles	Promotes growth of hair Beneficial for smooth, silky, and healthy hair, etc.

III . Conclusion and Future Prospective:

All the parameters showed that they are within the limits and since all the ingredients added have many advantages, this oil will help in maintaining good growth of hair, turning grey hair to black, protecting it from dandruff, and resulting in lustrous-looking hair.

This article summarized the traditional uses, phytochemistry, and pharmacological activities of different medicinal plants however, in traditional medicines, latex is widely used for various purposes but no detailed chemical analysis has been performed on latex, which needs attention. Both in vitro and in vivo pharmacological activity evaluations were carried out for the antidiabetic, anti-inflammatory, wound healing, and other activities Future studies should aim to establish the scientific evidence for the traditional uses of different parts of various plants. Bioassay-guided isolation and identification of compounds are necessary to characterize the active compounds in the extracts. Quantitative estimation of these active compounds will help to formulate the pharmacopeia standards for the crude drug and its extracts/formulations in the future. Only a few pharmacological studies on animals have shown promising antidiabetic activities of the extracts and isolated compounds but the detailed mechanisms were not explored properly. Future studies should also focus on the evaluation of possible toxicities, pharmacokinetic parameters, and clinical studies[15]

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