



FORMULATION AND EVALUATION OF HERBAL HAIR OIL

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ABSTRACT

The concept of beauty and cosmetics is as ancient as mankind and civilization. So, they use various beauty products that have herbs to look charming and young. Herbal cosmetics are now-a-days widely used by the common people because of concept of fewer side effects and with a better safety and security profile. The present work was aimed to formulate herbal oil for general purpose (application in hairs) using various herbs. The formulated herbal oil was evaluated and various parameters such as viscosity, saponification value, pH etc. were determined and are reported in this paper.

Key words: Cosmetics, Herbs, Herbal hair oil, Evaluation.

INTRODUCTION

Cosmetics are substances used to enhance the appearance or odor of the human body. Cosmetics include skin-care creams, lotions, powders, perfumes, lipsticks, fingernail and toe nail polish, eye and facial makeup, permanent waves, colored contact lenses, hair colors, hair sprays and gels, deodorants, baby products, bath oils, bubble baths, bath salts, butters and many other types of products. A subset of cosmetics is called "make-up," which refers primarily to colored products intended to alter the user's appearance. Many manufacturers distinguish between decorative cosmetics and care cosmetics¹. In the last three-four decades the use of cosmetics has increased exponentially not only among females but the male population also indulges in their use. Hair dyes, hair oil, creams are as popular with males as with females. Most countries now have laws to control, manufacturing, label, sale etc. of cosmetics in such a way that use of cosmetics harmful to health is prevented.

The concept of beauty and cosmetics is as ancient as mankind and civilization. So, they use various beauty products that have herbs to look charming and young. Indian herbs

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and its significance are popular worldwide². Herbal cosmetics have growing demand in the world market and are an invaluable gift of nature. There are a wide range of herbal cosmetic products to satisfy beauty regime. Adding herbs in cosmetics is very safe for our skin³⁻⁵. Herbal hair oils are one of the most well recognized hair treatments. Herbal hair oil not only moisturizes scalp but also reverses dry scalp and dry hair condition. It provides numerous essential nutrients required to maintain normal functions of sebaceous gland and promote natural hair growth. Keeping this point in consideration the present work was undertaken.

EXPERIMENTAL

Material and methods

Collection of plant part

For the preparation of herbal hair oil various plant materials were collected viz., Neem, Amla, Shankpushpi, Brahmi, Bhringaraj, Jatamansi, Nirgundi, Shatavari, Gammbhari and Pudina from the Medicinal Plant Garden of Ujjain Institute of Pharmaceutical Sciences, Ujjain, M.P. India and was properly authenticated in the Department of Pharmacognosy.

Formulation of herbal hair oil³

The various ingredients used in the formulation of herbal oil are presented in Table 1. Accurately weigh all the dried and fresh herbs such as Amla, Nirgundi, Bringaraj, Jatamansi, Neem, Gammbhari, Aprajita, Shankpusphi, Brahmi, Kapur and Pudina and were grinded in the mixture and was mixed in 63% of til oil. The above content was boiled for 15 min. and was filtered through muslin cloth. To the filtrate coconut oil was added to make up the volume (100 mL). Finally small amount of color and flavoring agent was added to the oil and it was placed in amber colored bottle.

Table 1: Ingredients used in formulation of herbal hair oil

S. No.	Ingredients	Quantity (%)
1.	Amla	85
2.	Nirgundi	2
3.	Bringaraj	10
4.	Jatamansi	3
5.	Neem	2.5

Cont...

S. No.	Ingredients	Quantity (%)
6.	Gammhari	3
7.	Aprajita	2
8.	Shatavari	2.5
9.	Shankpushpi	3.5
10.	Brahmi	7
11.	Kapur	1
12.	Pudina	1
13.	Til oil	63
14.	Coconut oil	37
15.	Rang	5
16.	Flavoring agent	2

Evaluation of herbal hair oil⁶

The formulated herbal hair oil was subjected to physical and biological evaluation.

Sensitivity test

The prepared herbal hair oil was applied on 1 cm skin of hand and exposed to sunlight for 4-5 min.

Acid value

Preparation of 0.1 molar solution: Weighed 0.56 g KOH pellets and dissolved in 100 mL of distilled water and stirred continuously. The prepared 0.1 molar KOH solution was filled in the burette. Preparation of sample: Measured 10 mL oil and dissolved in 25 mL of ethanol and 25 mL of ether mixture and shacked. Added 1 mL of phenolphthalein solution and titrated with 0.1 molar KOH solution.

Saponification value

Accurately weighed 1 mL of oil into a 250 mL of conical flask and 10 mL of ethanol : ether mixture (2 : 1) was added. To this flask 25 mL of 0.5 N alcoholic KOH was. Kept the flask for 30 min. and the flask was cooled. The cooled solution was titrated against

0.5 N HCl using phenolphthalein indicator. Similarly the blank titration was performed without taking oil (sample). Amount of KOH in mg used was calculated.

pH: The pH of herbal hair oil was determined using pH meter.

Viscosity: The viscosity was determined using Ostwald's viscometer.

Specific gravity: Take the specific gravity bottle, rinsed it with distilled water, dry it in oven for 15 minutes, cool, closed it with cap and weigh it (a). Now fill the same specific gravity bottle with the sample and closed it with cap and again weigh it (b). Determine the weight of sample per milliliter by subtracting the weight (b-a).

RESULTS AND CONCLUSION

Herbal hair oil is one of the most well recognized hair treatments. Herbal hair oil not only moisturizes scalp but also reverses dry scalp and dry hair condition. It provides numerous essential nutrients required to maintain normal function of sebaceous glands and promotes natural hair growth. The herbal hair oil was prepared from various herbs (Table 1) and their importance in the formulation is presented in Table 2. The various parameters like sensitivity test, viscosity, pH, irritation test, grittiness test, saponification value and acid value of herbal hair oil was evaluated (Table 3). Hence, from the present investigation it was found that the formulated herbal hair oil has optimum standards and further standardization and biological screening establishes the efficacy of formulated herbal hair oil.

Table 2: Role of herbs in herbal hair oil

S. No.	Ingredients	Importance
1.	Amla	Hair growth
2.	Jatamansi	Flavouring agent
3.	Neem	Antimicrobial
4	Shatavari	Hair growth
5.	Shankpuspi	Nervine tonic
6.	Brahmi	Nervine tonic
7.	Kapur	Stimulating agent
8.	Pudina	Flavouring agent
9.	Til oil	Vehicle

Table 3: Evaluation of herbal hair oil

S. No.	Parameter	Inference
1.	Specific gravity	1.096
2.	Viscosity	0.93
3.	Acid value	4.5
4.	Saponification value	115.05
5.	pH	6.8
6.	Sensitivity test	No irritation
7.	Irritation test	No irritation
8.	Grittiness	Smooth

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