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Review Article

Poly Herbal Hair Oil

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ABSTRACT

As old as humanity and civilization itself, beauty and cosmetics have been concepts. To seem lovely and youthful, they employ a variety of herbal-infused beauty products. The idea of herbal cosmetics having fewer side effects and a higher safety and security profile has led to their widespread use among the general public in recent years. The creation of polyherbal hair oil utilizing plant ingredients is the goal of the current investigation. Within allowable bounds, the created polyherbal hair oil assessed many criteria. For example, stability studies, acid value, saponification value, pH, viscosity, phytochemical screening, and organoleptic characterization with specificity.


INTRODUCTION

A crucial component that raises the body's general elegance is hair, which is derived from the epidermis. Humans encounter a number of hair-related issues, including split ends, dandruff, hair fall, and gray hair. Humans employ a variety of strategies and cosmetics to combat these. A common solution for nearly all of these issues is hair oil. Because of their increased effectiveness, lack of side effects, readily available materials, etc., herbal cosmetics are in great demand due to the growing interest of mankind in them. There are numerous plant and herbal remedies used in traditional Indian medicine that are said to enhance hair quality and stimulate hair growth. Product

definitions for herbal care are those that. It is preferred to utilize herbal hair oil for a variety of hair conditions. They stop hair loss, enhance the beauty of hair, and encourage hair growth. Hair oil not only encourages hair development but also gives the scalp the moisture it needs to produce gorgeous hair. To prevent and treat baldness and other hair problems, as well as to treat aggressive hair, hair oils are utilized. They also encourage hairs to grow luxuriously. As a hair tonic, hair oil containing herbal medications is applied. Hair care products can be divided into two primary categories: hair grooming aids and hair tonics. These are oil-based plant extracts used for

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therapeutic purposes. Many different herbs have been used to treat hair.



Methods of Preparation of Polyherbal Hair Oil

- 1) Cloth method
- 2) Paste method
- 3) Direct boiling method

1) Cloth method :

After being dried, the medication was weighed and wrapped in muslin cloth. Coconut oil was then used to hang this linen base, while stirring and boiling continuously, and then filtering the oil.

2) Paste method :

With very little water, fresh fruit, pulp, or the desired portion of the plants were turned into paste using the paste method, which was then stored overnight. This was followed by mixing the wet medicine with coconut oil and boiling it at a steady temperature while stirring constantly until the drug had been fully extracted from the oil and the water droplets in the oil stopped banging. A muslin cloth was used to filter the oil after that.

3) Direct boiling method :

The crude medications were weighed, ground into a powder, and then immediately cooked in coconut oil while being constantly heated and stirred until the drug was fully extracted in the oil basis. The steps taken to make the polyherbal hair tonic

MATERIAL AND METHODS:

1) Collection and authentication of plant materials
The polyherbal hair oil was prepared by collecting and using various plant materials; these are amla, curry leaves, henna, neem, coconut oil, hibiscus flower, brinjara, methi, ginger, aloe vera and ginger. Collected plants were identified.

1) Amla:



Biological source: Dried fruits of *Phyllanthus emblica*

Family: *Phyllanthaceae*

Use: hair conditioner, treats scalp ailments, promotes hair growth

2) Curry Leaves:



Biological source: Dried leaves of *Murraya koenigii*

Family: *Rutaceae*

Use: Prevents hair fall and premature greying of hair.

3) Henna:



Biological source: Dried leaves of *Lawsonia inermis*

Family: *Lythraceae*

Use: hair colorant helps in hair growth

4)Neem:



Biological source: Dried leaves of *A. Indica*

Family: Meliaceae

Use: Leaves Antimicrobial, antiseptic, antidandruff

5)Coconut oil:



Biological source: Oil derived from dried fruits of *Cocos nucifera*.

Family: Arecaceae

Use: moisturiser, vehicle, stimulates hair growth by unclogging

6) Hibiscus Flower:



Biological source : *Hibiscus sabdariffa*

Family: Malvaceae

Uses: Increasing blood flow to the scalp

7)Bringraj



Biological source : *Eclipta alba*

Family : Asteraceae

Use: Promot hair growth

8)Meethi:



Biological Source: *Trigonella foenum-graecum*

Family : Fabaceae

Use : Reduce dandruff

9)Ginger:



Biological source : *Zingiber Officinale*

Family : Zingiberaceae

Use: Natural conditioner and silky texture

10) Aloe Vera



Biological source : Aloe barbadensis

Family :Asphodelaceae

Use:Moisturizing and Reduce dryness

2)Drying of crude drug:

Crude drugs were dried under shade and proper aeration was provided to hasten the drying process.

3)Formulations of polyherbal hair oil:

a) All herbs of crude drugs are collected and dried under shade.

b) Drying under shade will retain active constituents.Hence,shade drying is preferred over artificial drying.

c) The dried crude drugs were made into coarse powder using mixer. Later on, all these coarsely powdered drugs are passed through mesh number80.this, obtained powders are blended together to get uniform mixture.

d) Now coconut oil and aloe Vera pulp is added. These all dried powders of mixed well. Now contents were boiled 15min and were filtrated through muslin cloth.

e) To filtrate, coconut oil was ad,ded to make up volume. Finally, prepared polyherbal hair

4) Packing of polyherbal hair oil:

The oil has a pleasant smell with rejuvenating activity for hair growth. The prepared hair oil is completely obtained from natural drugs so it has no side effects and has promising results. It is packed in amber-colored bottles and sealed tightly. Then the bottles are sealed in air-tight bottles.

5) storage of polyherbal hair oil:

The sealed bottles are stored under cool conditions. This keeps the oil stable for a longer period without undergoing rancidity.

Table 1: Ingredients used in formulations of polyherbal hair oil:

Ingredient	Quantity taken
Amla fruit	2 gm
Curry leaves	8 unit
Henna	3 gm
Neem	2 gm
Coconut oil	100 ml
Hibiscus flower	3-4 unit
Bringraj	2 gm
Meethi	2gm
Ginger	2-3 unit
Aloe Vera	2 gm

Evaluation Tests :

- 1) Physico-chemical evaluation
- 2) Physical examination
- 3) Skin irritation test
- 4) pH
- 5) Viscosity
- 6) Specific gravity
- 7) Acid value
- 8) Saponification value
- 9) Refraction index

1)Physio-chemical evaluation :

To assess the hair oil formulations, the physicochemical properties of the oil were estimated.

2)Physical examination :

- a) Colour
- b) Odour
- c) Irritation test
- d) Grittiness test

3)Skin Irritation Test :

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

4) pH Test:

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

5)Viscosity :

The viscosity was determined using Ostwald's viscometer. The viscometer was mounted in a vertical position on a suitable stand. Oil was filled into the viscometer up to mark A. The was counted for water to flow from mark A to mark B. the same procedure was repeated for the test liquid by using the above formula and the viscosity of the test liquid can be determined.

6) Specific gravity :

The specific gravity bottle was rinsed with distilled water, dried in a hot air oven for 15 minutes, cooled, capped, weighed, and noted as.

(a) Now the same specific gravity bottle was filled with the sample, capped and again weighed

(b) The weight of the sample per milliliter was determined by subtracting the weights (b-a).

Density of oil

Formula :

Specific gravity = density of sample/density of the same volume of water.

6) 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 10 mL oil was measured and dissolved in 50 mL of 1:1 ethanol and ether mixture and shaken vigorously. 1 mL of phenolphthalein solution was then added and titrated with 0.1 molar KOH solution.

7) Saponification value :

To accurately weighed 1 mL of oil in 250 mL of the conical flask, 10 mL of ethanol: ether mixture (2:1) was added. To this, 25 mL of 0.5 N alcoholic KOH was added and was kept undisturbed for 30 min. and the flask was cooled.

This solution was titrated against 0.5 N HCl using phenolphthalein indicator. Similarly, the blank titration was performed without taking oil (sample). The amount of KOH in mg used was calculated.

Formula:

Saponification Value = $56.1(B-S) N/W$

Where,

B= Volume in mL of standard Hydrochloric acid required for the blank.

S= Volume in mL of standard Hydrochloric

8) Stability:

the formulated polyherbal hair oil was stable when stored for one month.

9) Refractive index :

A refractometer measures the extent to which light is bent (i.e. refracted) when it moves from air into a sample and is typically used to determine the index of refraction (aka refractive index or n) of a liquid sample.

It was determined using a refractometer. firstly, turn on the light. Source choose oil sample; Water is used first to calibrate the instrument. Turn the refractometer scale knob to get a clear interface between the illuminated and dark regions. Read the index of refraction using the telescope scale. The temperature of the sample can be varied by using the slider. Repeat the experiment with oil and study the refractive index with temperature and wavelength.

RESULT AND CONCLUSION

Polyherbal hair oil is one of the most well recognized hair treatments. Herbal formulations provides best mixture of vitamins, antioxidants, essential oils, and also provides nutrients of hair growth. These formulations maintaining good hair growth of hairs, stopping hair loss, reduces dandruff of hairs, also shining of hairs.

Summary:

More people choose and utilize herbal hair oil for a variety of hair conditions. They prevent hair loss, enhance the beauty of hair, and encourage hair development. They not only encourage the growth of hair but also give the scalp the moisture it needs to produce gorgeous hair. Natural oil products having necessary properties to address hair issues including dry or flaky scalps and hair thinning are called herbal hair oils. These oils are utilized not



only for moisturizing but also to encourage hair growth, enhance blood flow to the scalp, stop dandruff, and give the hair shaft more volume.

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