



Review on Formulation and Evaluation of Herbal Hair Oil

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ABSTRACT:

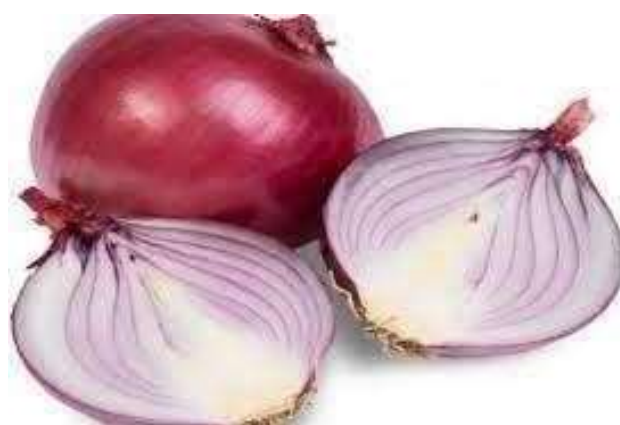
Herbal formulation always have attracted considerable attention because of their good activity and comparatively lesser or nil side effect with synthetic. hair loss problem is of great concern and to both males and females and the main problem associated with hair loss are hair fading, dandruff and falling of hair. The objective of present study involves preparation of herbal hair oil using Bramhi, onion, Banyan tree root, Amla, fenugreek seeds its evaluation for increase in hair growth activity. The evaluation of formulated herbal hair oil were carried out by various parameters such as physical features PH, saponification value, viscosity and specific gravity.

Introduction:

Hair loss is 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 common patient complaint and a source of significant psychological and physical distress. Natural products in the form of herbal formulations are available in the market and are used as hair tonic, hair promoter, hair conditioner, hair cleansing agent, antidandruff agents as well as for the treatment of alopecia. The traditional system of medicine in India acclaims a number of herbal drugs for hair growth promotion. In our study, we have found the extract of amla fruits, onion, brahmi, banyan tree root, fenugreek seeds are useful in treating hair loss.

Collection of plant part

Onion:



The *Allium cepa* also known as the bulb onion or common onion, it is a vegetable that is the most widely cultivated species of the genus *Allium* belongs to family *Amaryllidaceae*. The part used was the bulbs which contain several components with therapeutic benefits such as sulfur for hair growth, the fructan responsible for its diuretic effect. It also contains potassium salts and flavonoids that transferred anti-inflammatory properties. In addition, onion also shows action on cardio-circulatory system as protector of the small vessels. Prevent thrombosis and reduces blood cholesterol. Onion juice is a sure-shot method for boosting hair growth and promoting hair regrowth. It is one of the best ways to deal with hair issues. Onion juice improves hair growth by boosting the level of the antioxidant enzyme catalase. It nourishes your hair follicles with its rich content of sulfur. The rich sulfur content also helps in minimizing the hair thinning and breakage.

Family: Amaryllidaceae

Scientific name: *Allium Cepa*

Chemical constituent: allicin, quercetin, fisetin, and other sulphureous compound diallyl disulphide.

Amla:



Phyllanthus emblica is also known as emlic, gooseberry, amla. amla is excellent source of vitamin C, helps to boost your immunity, metabolism and prevent bacterial and viral ailments, including cold and cough. Also used as strengthen the scalp and hair, reduces premature pigments loss from hair or greying. It also prevent or dandruff and dry scalp.

Amla or the Indian gooseberry can treat hair loss effectively. This edible fruit is considered as a miracle cure for hair care. It stimulates hair growth and improves the quality of hair. It contains calcium, which promotes healthier hair. It helps strengthen hair follicles and reduces hair thinning. You can even include amla in your diet. Adding amla to your diet helps reduce oxidative stress and reduces free radicals. Vitamin C in amla increases the antioxidants in your body.

Amla purifies the blood and enhances hair natural colour by preventing premature greying of hair. It has antifungal and antiviral properties, which prevent dandruff and other fungal infections and improve scalp health.

Family: Phyllanthaceae

Scientific name: Indian gooseberry

Chemical constituents: Alkaloids (phyllantidine, phyllantine), vitamin C, Gallotannis (5%), Carbohydrates (14%), pectin, minerals, phenolic acid, Gallic acid, Embolicol, Amino acid.

Brahmi:



Brahmi is small herb with purple flowers. It grows in wet and sandy areas and near the stream in tropical regions. It is a creeping herb with numerous branches and small fleshy, oblong leaves. Flower and fruits appear in summer. The stem and leaves of the plant are used part whole plant. brahmi powder coats your hair naturally, and protects it from drying. Brahmi eliminates dryness, itchiness, and flaking. It also has the ability to reduce split ends, and make your hair lustrous.

Regulates hair loss:

Regular application of brahmi strengthens your hair roots and keeps them well- nourished. This herb is loaded with nutrients that can benefit your hair. Due to its biochemical composition, it is effective in treating temporary hair loss.

Family: plantaginaceae

Scientific name: Bacopa monnieri

Chemical constituent:

Alkaloids, saponins, betulic acid, D-manitol Steroids (Stigmasterol, Sistosterol)

Banyan tree root:



Banyan Tree Uses and Benefits for Hair:

Banyan tree also has therapeutic usage for hair and skin problems. Let us get a quick check of its beneficial impacts on Hair and Hair Growth Stimulant.

Banyan tree hair growth:

There are banyan tree uses for hair growth and baldness. Mix 20-25 gm ash of banyan tree leaves with 100 ml of linseed oil and massage your head with it. It will regenerate new hairs and cures baldness.

Remedy for Hair Problems:

Mix equal amount of mustard oil with extract of soft banyan leaves. Cook the mixture until it becomes medicated oil and apply it on your hair. It is very effective to treat all kinds of hair problems.

Solution for Long Hair:

Who does not want to get long and lustrous hair? Benefits of banyan tree roots cannot be ignored in getting long and beautiful hair.

Family: Moraceae

Scientific name: Ficus benghalensis

Chemical constituent:

The aerial roots contain phytosterolin. The bark of tree contains a glucoside, bengallinoside and flavonoid glycosides, leucocyanidin.

Fenugreek seeds:



The Trigonellafoenum- graecum is also known as fenugreek seeds. It is used as herbs, species and vegetable. Its main extensive use is in hair regrowth. It is also used in preparation of pickles and food. It is also used as a flavouring agent. Some people have also used fenugreek to promote hair growth, although research on whether it actually can do so has been limited.

Some early research has shown that fenugreek seeds can treat low to moderate hair loss in men and women. How it may work isn't clear, but some think that fenugreek stimulating blood circulation has something to do with it.

Various plant compounds in fenugreek may interact with a chemical in the body that is known as DHT (dihydrotestosterone). If DHT attached itself to your hair follicles, the result, sooner or later, would be hair loss. Fenugreek may slow down the ability of DHT to attach to your hair follicles.

Family: Fabaceae

Scientific name: Trigonellafoenum- graecum

Chemical constituent:

Carbohydrates, proteins, lipids, alkaloids, flavonoids, fibers, steroidal, saponins, vitamins and minerals, nitrogen compounds.

Importance of ingredients:

S. NO.	Ingredients	Importance
1.	Onion	For Strong and thick hair, Preventing hair and promoting hair growth.
2.	Amla	For Hair growth, strengthens hair maintains colour and improve luster.
3.	Brahmi	For Nervine tonic, eliminates dryness, itchiness, and flaking.
4.	Banyan tree roots	For Hair fall control and hair strong from roots.
5.	Fenugreek seeds	For Reach sources of iron and protein, and hair growth and its anti-inflammatory and antifungal.

Formulation of herbal hair oil:

The powder and herbs were used for herbal hair oil preparation. Take accurately weighed all the herbs and powder. Onion, brahmi, banyan tree roots, amla, fenugreek seeds. These powder and herbs were boiled in 100ml coconut oil and 50ml purified water. Boiled at low flame and continuous stirring and remove water. This boiled mixture was filtered in cloth. Separate the oil and fill the amber-coloured bottle. And add the small amount of perfume.

Formulations:

Sr. No	ingredients	F1	F2	F3	F4
1.	Onion	8gm	10gm	12gm	14gm
2.	Amla	8gm	10gm	12gm	14gm
3.	Brahmi	8gm	10gm	12gm	14gm
4.	Banyan tree roots	8gm	10gm	12gm	14gm
5.	Fenugreek seeds	8gm	10gm	12gm	14gm
6.	purified water	50ml	50ml	50ml	50ml
7.	Coconut oil	100ml	100ml	100ml	100ml



Herbal hair oil**Evaluation tests of herbal hair oil**

The formulated herbal hair oil was subjected to physical evaluation.

Sensitivity test:

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

Saponification value:

Accurately Weighed 1 ml of oil into a 250 ml 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 for 30 min. and flask was cooled. The solution Was 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:**

Starting of pH meter and calibration by using distilled water and oil the procedure for making a pH-temperature reading is: rinse the electrode tip in deionized water depress the dispenser button on the top of the electrode until a click is heard (releases 5)referenceelectrolyte at tip of electrode) waits until the readings become steady ("READY" indicator shows, and meter beeps once)record results (including temperature)

Viscosity:

The viscosity was Determine using Ostwald's viscometer.

Firstly, taking the Ostwald's viscometer filled by distilled water into the tube until the second tube is filled with upper mark then release the pressure and measured the time for lower marker.

Same procedure was continuous for oil and measuring these readings and calculating.

Specific gravity:

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

RESULTS:**Evaluation of herbal hair oil:**

S. No.	Parameter	Inference			
		F1	F2	F3	F4
1.	Sensitivity test	No irritation	No irritation	No irritation	No irritation
2.	Saponification value	199.15	198.13	199.33	197.98
3.	pH	6.8	6.7	6.8	6.9
4.	viscosity	0.00532	0.00532	0.00531	0.00529
5.	Specific gravity	114.9	114.3	114.1	115.3
6.	Grittiness	Smooth	Smooth	Smooth	Smooth
7.	Colour	Faint Brown	Faint Brown	Faint Brown	Faint Brown
8.	Odour	Pleasant	Pleasant	Pleasant	Pleasant

CONCLUSION:

Ayurvedic herbal oil, is one of the most well recognized hair treatments. Ayurvedic herbal oil, not only moisturizes scalp but also reverses dry scalp and dry hair condition. It provides various essential nutrients required to maintain normal function of sebaceous glands and promotes natural hair growth. The formulated herbal oil provides many nourishing value to hair such as vitamins, minerals, and essential oils. The finished product is within the limits. In conclusion, oil is beneficial to prevent hair from damage and loss caused by pollution and dull hair