

THE HERBAL DRUGS USED IN THE HERBAL HAIR OIL.**Krushna Bapusaheb Jare*, Gore Kailas Babasaheb and Prof. Abhijeet Raosaheb Shete**Department of B. Pharmacy, Shivajirao Pawar College of Pharmacy, Pachegaon,
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Pharmacy, Pachegaon,
Ahmednagar-413725.**ABSTRACT**

The concept of beauty and cosmetics is as ancient as mankind and civilization. Hence various beauty products that have herbs are used to look charming and young. Herbal cosmetics are formulated using different cosmetics/ herbal ingredients to form the base in which one or more herbal ingredients are used to cure various skin ailments. Hair plays a vital role in the personality of human and for their care we use lots of cosmetic products. This study aimed with reviewing the importance of herbal hair oil for the treatment of common hair problems such as baldness, alopecia, hair fall, grey hair, dryness, and most common dandruff. The various herbal ingredients are used in the formulation are Alma, Almond, Neem, Castor oil, Curry leaves,

Coconut oil, etc. All ingredients provide essential nutrients such as vitamin, antioxidant, protein, terpenoids, and many essential oils to maintain normal function of sebaceous glands. The formulated oil was evaluated for its Now-a-days side effect is a major problem after using any beauty products due to which herbal products are preferred because of having less probability of any types of side effects.

KEYWORDS: Hair, cosmetics, hair oil, herbal hair oil, herbs.**INTRODUCTION**

Hair plays an important role in human life in India. Hair is one of the important parts in Body and Protective appendages upon the body and accessory structure of integument along with sebaceous gland and sweat gland.^[1] Hair is one of characteristic feature of mammals and have various function such as protection against external factors. i.e., heat, cold. Etc. Women's and are known as for their long, healthy, shiny and healthy hairs. Hair can find nearly all over the surface of the skin except site over Some specific Sides & Soles. The rate

of growth of scalp hair is between 0.27- 0.40 mm. per day. The growth rate of the axillary hair is nearly same. The growth rate for hair on body surface is about. 0.2 mm per day through daily variation of temperature have no effect on the growth rate but the study indicated higher growth rate of beard in summer than winter. Also, there is one study report which indicated that the growth hair in of Scalp hair in women is faster than men.^[2]

The Charkha Samhita (the definitive book on Ayurvedic medicine) describe the important of oiling the hair and Scalp to maintain good hair growth and prevent hair loss. The traditional Process is the preparation of hair oil put together with various hair growth promoting drugs. The herbal hair oil Scalp and Formulation has Significant quality, and it provides various essential nutrients used to maintain the normal Function of the Sebaceous gland and promote the hair. growth naturally and the use of herbal Cosmetic improve the personal hygiene as well as health Care System in formulation used required for maintaining healthy and attractive hair. The hair preparation is mainly used do cool the Scalp for luxurious growth of hair in both men and women. Hair care Product are categorised into two main categories- hair tonic & hair grooming aids. Hair oil containing herbal drug are used as hair tonic.^[3]

Now-a-day as herbal wave is spreading worldwide use of herbal medicine increased. One needs to understand that there are many terms associated with herbal medicines. Herb can be defined as any plant which has leave, stem, flowers, root & seed used for different purpose. Herbal drug/ Phyto medicine/Herbal medicinal products (HMP) or herbal remedies are drug obtained from plants. Herbal Formulation always have lesser or no side effects comparatively with synthetic.^[4]

The study hair oil involves Preparation of herbal using herbal ingredient like Amla, Hibiscus, Tulsi, Methi, etc. Apart from hydrating your scalp and stimulating hair growth, hair oiling also Strengthens the hair. various type of oil like coconut oil, almond, oil castor oil, onion oil, are applied Scalp in a mixture with suitable herbal drug.^[5] Among the oil, coconut oil is foremost worthily oil base because it gets absorb into hair stand better than other oil and economical as compared to other oil. Hence Coconut oil is added with herbal drug as mentioned in the methods for best hair growth. Natural hair oils are hair care product which are rich in vitamin, minerals, fatty acid they are vital human cell.^[6] Hair oils are allowing these vital nutrients to absorb well into the scalp and a Strong and healthy hair growth. It does not have or have Comparatively lesser Side effects as it is formulated from herbal ingredients.^[7]

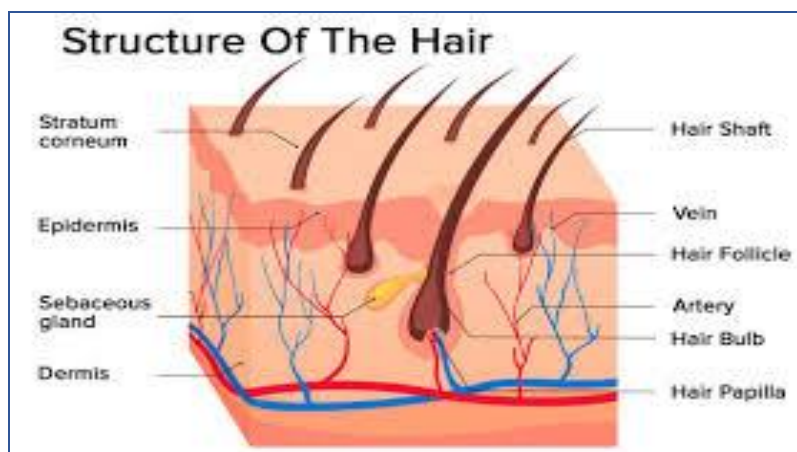


Fig.no:01.

Basic structure and hair growth: Hair is simple in structure made of the root and shaft included in hair follicle submerged into the skin in inclination and end down to the bulb while hair shaft is part of hair seen above the skin.^[5]

Hair is made up of tough protein keratin that provides strength of hair.

Usually, hair is consisting of two parts.

- Hair follicle.
- Hair shaft.
- **Hair follicle:** Hair follicle is the centre of biological activity like hair growth.
- **Hair Shaft:** Hair shaft is dead and is mainly made of the protein the part of the hair seen above the skin is called the hair shaft. The hair shaft is made up of dead cell that turn into protein called keratin. Keratin is made up of a chain of amino acids. This bond made hair strong.

Hair type: Hair type is primarily on hair curl pattern. The amount of curl in the hair is determine by hair follicle. Hair type is determined by genetics.

- Type 1-Straight.
- Type 2-Wavy.
- Type 3-curly.
- Type 4-Coily.
- **Hair growth cycle:** Hair growth form the follicle or root under neath the skin. The hair is fed by the blood vessel at the base of the follicle which give it nourishment it needs to grow.^[8]



Fig.no:02

- **Hair growth cycle passes through 4 stages**

- Anagen (growing stage).
- Catagen (transition phase).
- Telogen (resting phase).
- Exogen (shedding phase).

The above phases can be described briefly in the following ways.

- **Anagen:** The first stage of hair growth cycle is called as anagen stage.
- -This is phase where the hair physically grows approximately 1cm per month. About- 85%-90%Of the hair on one head are in the anagen phase at any given time.
- -During this phase the cell in the papilla divide to produce new hair fibre and the follicle buries Itself into the dermal layer of the skin.



Fig.no:03

- **catagen phase:** The catagen phase also known as a transitional phase.
- - It allows the follicle to in the sense renew itself.
- -During this time last about two week the hair follicle shrink due to disintegration and the papilla detaches and rest cutting the hair stand of form its nourishment blood supply.



Fig.no:04

- **Telogen phase:** The telogen phase is also known as resting phase or shedding phase the follicle remains dormant for one to few months.
- About 10%to 18% of all here in the telogen stage. about follicle then remains inactive for 3 month and the whole process repeated.^[9]



Fig.no:05.

Different Hair oils used in day-to-day life

- i. Parachute coconut oil.
- ii. Dabur amla hair oil.
- iii. Patanjali hair oil.
- iv. Virgin coconut oil.
- v. Ultra doux hair oil.
- vi. Indulekha hair oil.

Benefits of the herbal hair oil: -Herbal hair oil has always been every popular for the range of benefits that they bring to your hair.

-They are essential plant extract and have combination antioxidant bioactive compound and different nutrient which work in the synergy to add to the health of your hair.^[10]

-The natural properties of herbal hair oil help treat various hair problem including hair fall and dry scalp.^[11]

Following are some of the important benefits of herbal hair oil.

- Help to add strength and elasticity to dry and brittle stand.
- Nourishes the scalp and hair.
- Protect the scalp from sun and wind damage.
- Helps to reduce dandruff.
- Stimulate hair growth.
- Make hair shiner and softer.
- Strengthen hair follicle prevents hair loss.
- Provides natural goodness to hair.^[12]

Table No:01. Different herbs used for preparation of herbal oil.^[13,14]

1.	Eclipta prostrate	Bhringraj	Asteraceae	Alkaloids, flavonoids, terpenoids.
2.	Phyllanthus Emblica	Amla	Phyllanthaceae	Ascorbic acid, Ellagic acid, gallic acid.
3.	Ocimum tenuiflorum	Tulsi	Lamiaceae	Eugenol, linalool, cavacrol.
4.	Senegalia ruguta	Shikakai	Fabaceae	Alkaloids, tartaric acid, citric acid.
5.	Rosa-sinesis	Hibiscus	Malvaceae	Polyphenols, Anthocyanins.
6.	Cocos-nucifera	Coconut	Aceraceae	Lauric acid, myristic acid, caprylic acid.
7.	Azadirachta indica	Neem	Meliaceae	Nimbin, salanin.
8.	Allium cepa	Onion	Amaryllidaceae	Menthol, acetic acid.
9.	Aloe vera	Alovera	Aphodelaceae	Chromone, anthraquinone.
10.	Asparagus racemosus	Shatavari	Asparagaceae	Mucilage, alkaloids.

PLANT PROFILE❖ **Bhringraj.****Table No.02.**

Botanical name	Eclipta prostrata
Kingdom	Plantae
Order	Asterales
Family	Asteraceae
Genus	Eclipta
Species	E.Prostrata
Geographical location	Moist Places in warm temperate to tropical areas worldwide.

**Fig.no:06.**

Eclipta Prostata commonly known as false daisy, Bhringraj is a species of plant in the family Asteraceae. It is widespread across much of the world. This plant has cylindrical, greyish roots, solid, circular purplish stems with white fine hairs 0.8m. The height of the plant is up to 30-35cm. Mainly found in the region of India in state of Bihar, Assam, Uttar Pradesh and Manipur.^[15]

Role: Prevents hair fall.

-Helps to prevent premature greying of hairs.

-Helps to reduce dandruff.

-Repairs hair damage.^[16]

❖ Amla

Table No.03.

Botanical name	Phyllanthus embica
Kingdom	Plantae
Order	Malpighales
Family	Phyllanthaceae
Genus	Phyllanthus
Species	Pemblica
Geographical location	Native to subtropical south Asian countries of India.



Fig.no:07.

Phyllanthus emblica also known as embolic, Indian gooseberry, Malaca tree or Amla is a deciduous tree of family phyllanthaceae. The tree is small to medium in size reaching 1-8m (3 ft 3 inch-26ft 3 inch) in height. The leaves are simple and intently set alongside branchlets. The flowers are of greenish yellow colour. Fruits are nearly round and having hard appearance.^[09]

Role: Used as traditional hair tonic for hair growth.

- Nourishes hair.
- Reduces dandruff.
- Strengthens the hair roots.^[17]

❖ Tulsi.

Table No:04.

Botanical name	Ocimum tenuiflorum.
Order	Lamiaceae
Family	
Genus	Ocimum
Species	O.tenuiflorum.
Kingdom	Plantae.
Geographical location	Native to Indian subcontinent and grows throughout southeast Asia.



Fig.no:08.

Tulsi is one of the most recognised herbs from the family Lamiaceae, that is indigenous to Indian subcontinent and has been used inside ayurvedic medication over 3000 years. Tulsi is also known as Holy basil. It is an erect and has large number of branches Leaves of Tulsi are nerve tonic and helps in sharpening memory.

Role: Used as coagent remedy for hair loss.

- Strengthens the hairs.
- Prevents loss of hair.
- Nourishes hairs.^[18]

❖ **Shikakai.**

Table No:05.

Botanical name	Senegalia ruguta.
Kingdom	Plantae
order	Fabales
Family	Fabaceae
Genus	Senegalia
Species	S.rugata
Geographical location	Native to China and tropical Asia.



Fig.no:09.

It consists of pods of plant *Acacia concinna* of family Mimosaceae. It is observed in plains of central and south India. Shikakai consists of lupeol, spinasterol, acacic acid, etc. It acts as hair cleaner, astringent and detangle hair.

Role: Promotes growth of hair.

- Strengthens hair.
- Acts as antidandruff agent.
- Detangles hair.
- Used as natural hair cleanser.^[19]

❖ Hibiscus.

Table No:06.

Botanical name	<i>Rosa sinensis</i> .
Kingdom	Plantae.
Order	Malvales.
Family	Malvaceae.
Genus	<i>Hibiscus</i>
Species	<i>R. sinensis</i> .
Geographical location	Warm, temperate, subtropical and tropical regions.



Fig.no:10.

Hibiscus belongs to the family Malvaceae. It has constituents such as taractyl acetate, β -sitosterol, campesterol, etc. The plant is extensively cultivated as an ornamental plant in tropical and subtropical regions.^[20]

Role: It is used as hair conditioner.

- It acts as hair tonic.
- It stimulates growth of hairs.
- Prevents premature greying of hairs
- It prevents loss of hair.^[21]

❖ **Coconut.**

Table No:07.

Botanical name	Cocos nucifera.
Kingdom	Plantae.
Order	Arecales.
Family	Arecaceae.
Genus	Cocos.
Species	C.nucifera.
Geographical Location	Throughout the tropics.



Fig.no.13.

Coconut is very large source of oil. Coconut is made up hard covering. it is mainly found in the coastal areas. The milk of coconut palm fruit is processed for obtaining coconut oil. It consists of fixed oil obtained from kernels of plant *Cocos nucifera* Linn of family plantae.^[22]

Role: It is used to moisturize hairs.

- Used to strengthen hairs.
- Gives shine to hair.^[23]

❖ **Neem.**

Table No:08.

Botanical name	Azadirachta indica
Kingdom	Plantae
Order	Sapindales
Family	Meliaceae
Genus	Azadirachta
Species	A. indica
Geographical location	Throughout all south and southeast Asia.



Fig.no:12.

Neem is found indigenous to all plains of Indian subcontinent. It is fast growing tree and can reach a height up to 15-20 meters. It is Evergreen, Shading many of its leaves during the winter months. Various parts like leaves,bark,gum,etc are used on large scale for medicinal preparations.

Role: Helps to relive itchy scalp.

- Intensify hair growth.
- Prevents premature greying of hairs.
- Nourishes hairs.
- Controls dandruff.^[24]

❖ Onion.

Table No:09.

Botanical name	Allium cepa
Kingdom	Plantae
Order	Asparagales.
Family	Amaryllidaceae
Genus	Allium
Species	A.cepa
Geographical location	Native to south-western Asia.



Fig.no:13.

The onion has been grown selectively bred in cultivation for at least 7000 years. Modern varieties typically grow to height of 15-45cm. The leaves are yellowish to bluish green and grow alternately in a flattened, fan shaped swathe. Onion has been valued as a food and medicine plant since ancient time.

Role: Used to treat dandruff.

- It inhibits thinning of hair.
- It stops premature greying of hairs.
- It nourishes the hairs.^[25]

❖ Aloe Vera.

Table No:10.

Botanical name	Aloe vera.
Kingdom	Plantae.
Order	Asparagales.
Family	Asphodelaceae.
Genus	Aloe.
Species	A.vera.
Geographical location	Widely distributed in Africa, India and other arid area. ^[26]



Fig.no:14.

Aloe vera is a stemless or very short, stemmed plant growing to 60-100cms. The leaves are thick and fleshy, green to gray-green, with some varieties showing white flecks on their upper and lower stem surfaces.^[27] Aloe species are distributed widely in the eastern European continents and are spread almost throughout the world.^[28]

- **Role:** Strengthens the hairs.
- Repairs hair strands.
- Relieves itchy scalp.
- Nourishes hair.^[29]

❖ Shatavari.

Table No:11.

Botanical name	Asparagus racemosus
Kingdom	Plantae.
Order	Asparagales.
Family	Asparagus.
Genus	Racemosus.
Species	A.Rcemosus.
Geographical location	Throughout the tropical and subtropical regions, particularly in central India. ^[30]



Fig.no:15.

Shatavari has small pin needle like photosynthetic branches of uniform size. It is also considered as female reproductive tonic.^[31] The plants have large number of secondary metabolites like alkaloids, steroids, flavonoids and other essential oils.^[32]

Role: Strengthens hair.

- Inhibits thinning of hairs.
- Nourishes hair.^[33]
- **Some Homemade preparations of herbal hair oil.**^[2,35]

1. Onion oil.

Procedure

- i. Heat 250 ml virgin coconut oil in a pan.
- ii. After 5 minutes add onions.
- iii. Hens after 5 mins add curry leaves.
- iv. Heat for next 15 mins. Add castor oil/ almond oil/ olive oil for further improvisation.
- v. Castor oil is said to improve the length of the hair and split ends. Almond oil provides Vit. E and nourishment to the scalp. Olive oil for getting voluminous hair.
- vi. Let it cool down and then filter the oil with the help of a sieve.^[2,35]

2. Lemon bulb oil.

Procedure

- i. Grate the outside of the lemon over a bowl, Fill a small glass bottle halfway with the grated lemon zest.
- ii. Fill the rest of the bottle with olive oil.

- iii. Set the bottle on a windowsill or somewhere else that gets a lot of sun.
- iv. Leave it there for a few days, but shake the bottle a few times per day.
- v. Store lemon oil in an airtight container at room temperature.^[2,35]

3. Lemon grass oil.

Procedure

- i. Get two lemongrass stalks and crush them using the mortar and pestle.
- ii. This will help release the oil. (A rolling pin is an effective substitute if you don't have a mortar and pestle.)
- iii. Place the crushed stalks inside the jar and add carrier oil until stalks are covered.
- iv. Seal the jar with an airtight lid and place in a sunny location for two days.
- v. Make sure that the spot gets enough sunlight and heat throughout the day.
- vi. After two days, strain the lemongrass oil using cheesecloth.
- vii. Repeat step 1.
- viii. Add the crushed stalks to the second jar, and then place back under the sun for two more days.^[2,35]

4. Mustard oil.

Procedure

- i. Take a bowl of mustard seeds.
- ii. Remove all dirt in it.
- iii. Take one cup of carrier oil.
- iv. This could be coconut oil, almond oil, etc. bring it to boil in a pan.
- v. Put the mustard seeds in, let it boil till brown.
- vi. Cool it and store it in a bottle. It would be better to store it in the refrigerator.^[2,35]

5. Neem oil.

Procedure

- i. Wash neem leaves and, again, remove the excess water with a paper towel or just let it evaporate in a natural way.
- ii. Pour a generous amount of coconut oil into a saucepan and heat it on the kitchen fire.
- iii. Coconut oil is slightly milky when it's cold but loses this color while being heated. You need to heat it until it's completely transparent.
- iv. In the meanwhile, grind the neem leaves with the help of a blender or a grinder. You will receive a thick paste with particles of leaves and stems.

- v. When the oil is transparent, add the neem paste and stir immediately.
- vi. Let the mixture boil, stirring it constantly and thoroughly.
- vii. When it boils, reduce the fire and keep on cooking for several minutes more.
- viii. When you can see that the liquid in the saucepan is green, turn the fire off this is how you can receive the neem infused coconut oil easily.^[2,35]

6. Garlic oil.

Procedure

- i. Crush 4 cloves of garlic directly into a saucepan and pour in the olive oil.
- ii. Squeeze the cloves of garlic through a garlic press directly into the pan.
- iii. Stir the garlic and the 1/2 cup (120 ml) of olive oil together so the garlic is evenly distributed in the pan.
- iv. Heat the mixture over medium-low heat for 3 to 5 minutes. The heat helps infuse the flavour of the garlic into the oil.
- v. Cook the mixture, stirring it occasionally until the garlic is light brown and slightly crispy.
- vi. Remove the pan from the heat and pour the mixture into a container.
- vii. Let the mixture cool completely before placing the lid on the airtight container and sealing it tightly. This prevents excess moisture from gathering in the container and spoiling the oil.
- viii. Keep the oil in the refrigerator for up to 5 days.^[2,35]

7. Camphor oil.

Procedure

- The preparation given here is based on the traditional Ayurveda method.
 - This oil will be pale green apart from the camphor oil available in the market which is transparent.
- i. Take 25 ml of coconut oil and it should be heated until all the water content is evaporated.
 - ii. Now filter the content and pour it into a dry vessel with 5gm of powdered camphor.
 - iii. Stir it continuously until the camphor dissolves into the oil.
 - iv. Let it cool down and then transfer it into a dry glass bottle.^[2,35]

❖ **CONCLUSION:** The above review article is presented to indicate and know about the various constituents available in the herbal drugs such as minerals, amino acids and other growth promoting hormones /agents. The active ingredients are present in such a medicinal plant have an ability to prevent and protect the various hair related problems. Use of such herbal constituents for medications of herbal hair oil is good and relevant due to low price and zero side effects.

The herbal drugs discussed in this review are easily available and has minimum or very low cost and does not have any side effects. Hence herbal hair oils are preferred over synthetically prepared hair oils. Overall, the composite herbal hair oil prepared with all these ingredients will help in maintaining healthy hair growth, turning grey hair to black, protects against dandruff, and results in lustrous looking hair. Hence, this formulation will be proved to be safer for human use.

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