



Formulation, Development And Evaluation Of Herbal Hair Oil Containing Herbal Ingredients

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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 beautification purpose of body, preparation of cosmetics, flavouring and coloring agent. Hair plays a vital role in personality of human and we use a lots of cosmetics product for the care of hair. The aim of study is to reviewing the importance of herbal oil and their use in the common hair problem such as baldness, hair fall, hair dryness, dandruff etc. Various beauty and cosmetic products are used which contain herbs to give young and charming look. Various herbal ingredients are used in herbal hair formulation. They provide essential nutrients such as vitamins, antioxidant, etc. Herbal hair oil has been widely used for nourishment of hair and for the protection of hair from hair fall and hair damage.

KEYWORDS: Herbal hair oil, Dandruff, Cosmetics, Nourishment, Hair fall.

INTRODUCTION:

Hair oils are the hair care preparations used for the prevention and treatment of baldness or other ailments, aggression of hair. They also promote the luxurious growth of hairs. Hair oil containing herbal drugs are used as hair tonic. Hair care products are categorized into two main category, hair tonics and hair grooming aids. These are basically the extracts of medicinal plants in an oil base. Hair loss, or alopecia, is a common patient complaint and a source of significant psychological and physical distress. Androgens are considered to be one of the most important causes for alopecia apart from a variety of other factors. Natural products in the form of herbal formulations are available in the market and are used as hair tonic, hair growth promoter, hair conditioner, hair-cleansing agent, antidandruff agents, as well as for the treatment of alopecia, dandruff and lice infection. Hair is one of important parts of body considered to be protective appendages on the body and accessory structure of the integument along with sebaceous gland and sweat gland [1] The basic part of hair is bulb, root and shaft.[2] Hair fall, dandruff, lice, split end, grey hair are some of the well known problems related to hair.[3] A piece of hair looks simple but it is one of the most complicated structures in body.

Hair is made up of two structures:-

- Hair follicle
- Hair shaft

HAIR STRUCTURE:

Hair follicle:

The hair follicle is where hair begins to grow and where it is held in place. It is a stocking-like structure that starts in the epidermis. It extends to the dermis. The follicle is lined by an inner and outer sheath that protects and molds the growing hair and ends just before the opening of sebaceous gland.

Hair shaft:

The hair shaft is the part of the hair that is made up of three layers of keratin.

Those layers are;-

- i. The inner layer: - Also called as medulla. Depending on type of hair, the medulla is not always present.
- ii. The middle layer: - This is called the cortex which makes the majority of the hair shaft.
- iii. The outer layer: - Also called as cuticle, which is formed by tightly packed scales in an overlapping structure that resemble roof shingles.

STRUCTURE:

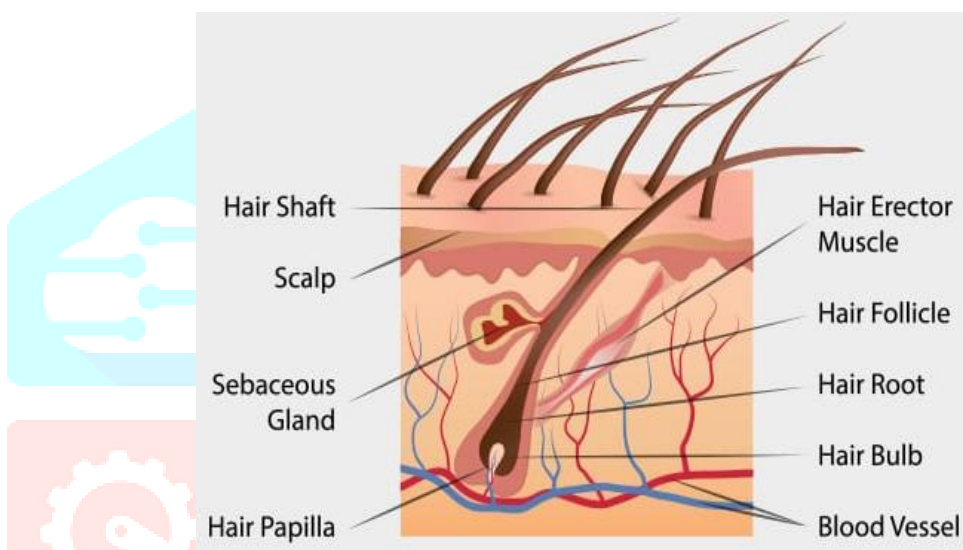


Figure-1

SKIN STRUCTURE:

Epidermis:

Your epidermis is the outermost layer of skin on your body. It protects your body from harm, keeps your body hydrated, produces new skin cells and contains melanin, which determines the color of your skin

Dermis:

The dermis has connective tissue, blood vessels, oil and sweat glands, nerves, hair follicles, and other structures. It is made up of a thin upper layer called the papillary dermis, and a thick lower layer called the reticular dermis.

Hypodermic:

Your hypodermis is the bottom layer of skin in your body. It has many functions, including insulating your body, protecting your body from harm, storing energy and connecting your skin to your muscles and bones.

HAIR TYPES:

Hair type is primarily based on hair's curl pattern. The amount of curl of the hair is determined by hair follicle. Hair type is determined by genetics. Andre walker, known for decades as Oprah winfreys stylist, is credited with devising a system that classifies hair according to one of four curl pattern.

Type 1:- Straight

Type 2:- Wavy

Type 3:- Curly

Type 4:- Coily

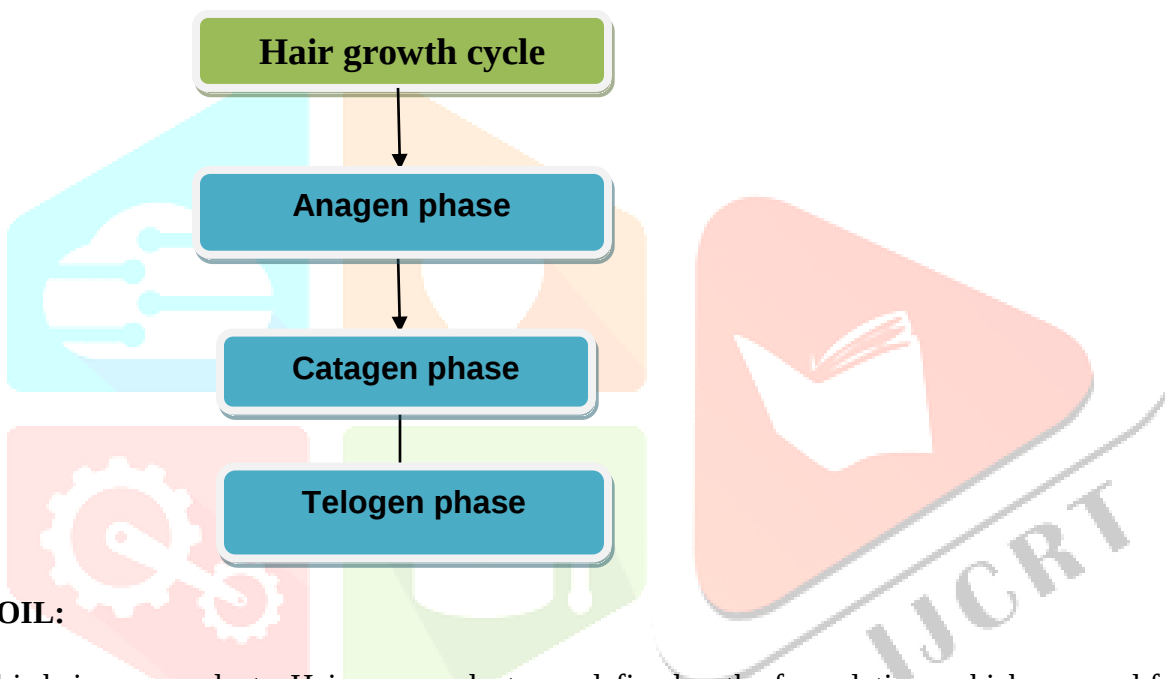
HAIR GROWTH CYCLE:

Hair growth cycle consists of 3 stages:-

a) Anagen phase: The Anagen phase is the growth phase of the hair. The Anagen phase will last from between 2-6 years. A new hair pushes the new Hair that stopped growing up and out of the follicle.

b) Catagen phase: The Catagen phase is a transitional stage and 3% of all Hairs are in this phase at any given time. This phase lasts for 2-3 weeks

.c) Telogen phase: The Telogen phase is the resting phase which lasts for about 2-3 months. During the telogen phase, the hair follicle is at rest and the Club hair is completely formed.



HAIR OIL:

Hair oil is hair care products. Hair care products are defined as the formulations which are used for the purpose of cleansing, modifying the hair texture, providing nourishment to the hair and maintaining the healthy appearance of hair. Hair oil are hair care formulation applied to the hair for the treatment of hair disorder such as baldness, greying of hair, hair fall, dry hair and also helps in providing nourishment to hair. Herbal cosmetics are high in demand due to increasing interest of mankind towards them also herbal cosmetics are more effective with negligible side effects and ingredients are easily available. Herbal hair oil is an essential part of herbal cosmetics. Herbal hair oil is more preferred and used in many ailments of hair. They not only promote hair growth but also provide necessary moisture to the scalp rendering in beautiful hair Herbal oil which contain herbal drugs are known as hair tonic. Herbal hair oil provides a number of essential nutrients which are important to maintain the normal function of sebaceous gland and promote natural growth of hair. These are one of the most well recognized product for the treatment of hair. The use of hair oil is increasing every day in line with the improvement in standard of living of people To give natural flavors and colors to hair oil the herbal essences and Perfumes are added.

Different types of herbal hair oil available in market:

- Amla hair oil
- Coconut hair oil
- Bhringraj hair oil
- Jasmine hair oil
- Brahmi hair oil
- Cantharidine hair oil
- Onion hair oil

BENEFITS:

We live in polluted world which is not hair friendly. That is when herbal hair oil comes into practice. Herbal oil is a blend of Bhringraj, Jatamansi, Amla, Hibiscus, Rosemary, Almond and other herbs.

Their benefits are as follow:

- 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 needs special care and herbal oil pampers them throughout their nourishment.
- Regular use of hair oil of hair oils cure problem of premature grey hair.
- Keeps the scalp hydrated.
- Improves hair growth.
- Prevents dandruff.

Different herbs used are as follows

Sr. no.	Botanical name	Common name	Family	Chemical constituents
1	Eclipta prostrata	Bhringraj	Asteraceae	Alkaloids, flavanoids, terpenoids
2	Phyllanthus Emblica	Amla	Phyllanthaceae	Ascorbic acid, Ellagic acid, Gallic acid
3	Ocimum tenuiflorum	Tulsi	Lamiaceae	Eugenol, Linalool, Carvacrol.
4	Senegalia ruguta	Shikakai	Fabaceae	Alkaloids, Tartaric acid, Citric acid
5	Rosa- sinensis	Hibiscus	Malvaceae	Polyphenols, Anthocyanins
6	Cocos nucifera	Coconut	Arecaceae	Lauric acid, mristic acid, caprylic acid

PLANT PROFILE:**1. Bhringraj**

Botanical Name	Eclipta prostrata
Kingdom	Plantae
Order	Asterales
Family	Asteraceae
Genus	Eclipta
Species	E.prostrata



Figure 2:-Bhringraj

Eclipta Alba is an annual multi branch herbaceous plant. The height of plants is up to 30-50cm. It is found in tropical and subtropical region of the world such as South America, Asia and Africa at an altitude up to 2000 m. In the region of India It is mainly found in state of Bihar, Assam, Uttar Pradesh and Manipur.

Role:

- Prevents hair fall
- Promotes hair growth
- Makes hair lustrous
- Repairs hair damage
- Treats baldness.

2. Amla

Botanical Name	Phyllanthusembica
Kingdom	Plantae
Order	Malpighiales
Family	Phyllanthaceae
Genus	Phyllanthus
Species	P.emblicca



Figure 3:-Amla

Phyllanthus emblica is an important medicinal plant in Indian traditional system of medicine.[13] The tree is of 1-8 meter in height. The leaves are simple and intently set alongside branchlets. The flowers are of greenish yellow colour. The fruit is nearly round in shape and having hard appearance

Role:

- Condition your scalp.
- Minimize grays
- Reduce dandruff
- Promote healthy hair growth
- Strengthens the hair roots

3. Tulsi

Botanical Name	Ocimum tenuiflorum
Kingdom	Plantae
Order	Lamiales
Family	Lamiaceae
Genus	Ocimum
Species	O. tenuiflorum



Figure 4: - Tulsi

Tulsi is one of the most well recognized herbs from the family Lamiaceae that is indigenous to the Indian subcontinent and has been used inside Ayurvedic medication over 3000 years. Holy Basil is an erect, many branched sub shrub 30- 60 cm tall having hairy stem. Leaves are of green or purple colour. The plant of tulsi has many medicinal properties. Leaves of tulsi are a nerve tonic a nerve tonic and also sharpen memory.

Role:

- Coagent remedy for hair loss
- Hair loss treatment
- strengthening the hair roots
- Prevent bacterial and fungal infection.

4. Shikakai

Botanical Name	Senegalia rugata
Kingdom	Plantae
Order	Fabales
Family	Fabaceae
Genus	Senegalia
Species	S.rugata



Figure 5:-Shikakai

Shikakai is a woody climber, shrub upto 5 metres tall. Leaves are bipinnate. Shikakai has a naturally mild pH that gently cleans the hair without stripping it of natural oil. The regions having dry hot weather like South India is best suited for these trees. The extract from the bark, leaves, of shikakai is used as hair cleansing agent. Shikakai is traditionally used in shampoo preparations for the purpose of hair growth.

Role:

- Makes hair soft and shiny
- Heals scalp and prevents the agony of the dry scalp
- Boosts hair growth
- Delaying graying of hair
- Works as natural hair cleaner

5. Hibiscus

Botanical Name	Rosa-sinensis
Kingdom	Plantae
Order	Malvales
Family	Malvaceae
Genus	Hibiscus



Figure 6:- Hibiscus

The leaves are alternate, ovate to lanceolate, frequently with a toothed or lobed margin. The flowers are large conspicuous, trumpet-shaped with five or more petals. This plant is extensively cultivated as an ornamental plant in tropical and subtropical region. This plant is commonly found throughout the tropics and is found as a house plant throughout the world.

Role:

- Stops hair loss
- Prevent premature graying
- Thicken hair and add volume
- Treat dandruff

6. Coconut oil

Botanical Name	Cocos nucifera
Kingdom	Plantae
Order	Arecales
Family	Areaceae
Genus	Cocos
Species	C.nucifera



Figure 7: - Coconut Oil

Coconut oil is derived from milk of the coconut palm fruit. Coconut oil is used as a meals oil, and is used in industrial applications for cosmetics and detergent Production.

Role:

- Masks hair
- Moisturizes hair
- Seal hair
- Makes hair look shinier.

CONCLUSION:

Overall, herbal oils that are formulated provide a lot of nutritious food. Hair values such as vitamins, minerals, and essential oils. Finished products are within the limits. In conclusion, oil useful to prevent hair from damage and loss caused by pollution and dull hair. And provide alternative sources from hazardous chemicals.

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