

Comprehensive Review on Polyherbal Hair Oil

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Abstract: Herbal cosmetics are now-a-days widely used by the common people because of fewer side effects and with a better safety and security profile. In the Human, hairs has significant role such as it determines appearance, gender distinction, protect from temperature. The loss of hair is not temporary in most cases, but it may results in alopecia. polyherbal hair oil having many advantages as it is free from hazardous chemicals and prevent dandruff, freeze hair, dullness and dry hair and protects against damage. Each of these herbs having a Specific quality are used in the oil to provide humidity, a natural way to deal with hair-related problems. The review aims to provide information about the different problems of hair and herbs which help to solve hair problem.

Keywords: Polyharbal, Hair oil

I. INTRODUCTION

Hair is considered to be the most important organ in human that defined the appearance, gender difference, offers protection from extreme temperature and play a role in self defense. Human hair generally comprises follicles of anagen, catagen and telogen phases. [1] Hair is complex structure made by the many components that act as a unit, with the biological purpose of protecting the scalp, enhancing physical attractiveness, preventing of pre-greying, rusting of hair, preventing from dandruff [2]. During aging hair loss is quite natural and common however it causes greater concern to people. Due to several life style related changes such as stress, anxiety, consumption of junk food, using of hair styling or hair color etc. the young generation has started facing many of the hair loss problems Hair fall, lice, split ends are the problems increasing now a day's. Alopecia Areata is a immune mediated skin disorder with a non-scarring loss of hair in general population, it has an incidence range of 1.7 to 2.1 percent, with higher occurrence in young patients of age group about 21 to 40 year and no significant difference in incidence between males and females reported. Hair care industry has furnished with many items to improve, upgrade fortify and to support hairs problems. [3]

In traditional Indian system of medicine many plants and herbal formulations are reported for hair growth promotion as well as improvement of hair quality. Herbal care products are defined as those formulations which are used for cleansing, modifying the texture of hair, changing of color, giving life to stressed hair and improving nourishment of the hair. Due of their less side effects and readily accessible components, herbal cosmetics are widely utilized. Herbs are now a common ingredient in hair care products, and they are considered as superior than synthetic ones. Hair oils are the hair care formulations applied for treatment of hair disorders such as graying of hair, hair falling, dryness of hair. [4] Hair oils are the hair care preparations used for the prevention and treatment of baldness or other ailments, and aggression of hair. They also promote the luxurious growth of hairs. Hair oil containing herbal drugs is used as a hair tonic. Hair care products are categorized into two main categories, hair tonics and hair grooming aids. These are the extracts of medicinal plants in an oil base.

Presently there many synthetic formulations are available but they have some side effects too. So there is need of formulation which has less or no side effects. Medicinal plants have been used for the treatment of various hair diseases since ancient times because of fewer side effects and hypersensitivity reactions. Herbal formulation is good choice as it is easily available, less expensive, safe, an efficient and has few or no side effects. [5]

Minerals and vegetable oils are used to make a variety of commercial and traditional hair oils. Coconut oil is a common ingredient. Other vegetable sources include almond, argan, babassu, burdock, Castor, and tea seed. Natural oils are used

more commonly as cosmetic products on the scalp. Natural oils come from natural resources that are very high in nutrients such as vitamins and fatty acids. [6,7]

Functions of hair:

- i. Hair regulate body temperature
- ii. Hair extends over sense of touch
- iii. Hair protects over bodies from harmful objects [8]

Structure of Hair:

The hair has mainly two distinctive structures (fig no.01):

1. Hair follicle- The part underneath the skin is called as hair follicle. This is an organsituated in the dermis and keeps us with the stem cell, it do not get re-developed the hair after it gets drop out.
2. Hair shaft- The hair shaft which is the hard, filamentous part that reaches out over the skin surface. Hair shaft has three significant parts out over the skin surface.
 - i) Cuticle: The cuticle may be a transparent outer layer of the hairs shaft. It's made from scales that overlap each other and protect the inner layers of the hair
 - ii) Cortex: It is largest part of hair shaft which provides the color to hair i.e. melanin (hair pigment).
 - iii) Medulla: It is the middle of hair. It's going to be fragmented or segmented and continuous or doubled. It forms the middle of the hair shaft. Fine hairs especially tend to lack this layer.[9]

Types of hair loss:

1. Androgenetic or androgenic alopecia (baldness): It is the most common cause of hair loss in men also known as hereditary baldness. In androgenetic alopecia hair follicle size is reduced and duration of anagen is diminished while an increase in the percentage of hair follicles in telogen.
2. Alopecia areata: In alopecia areata the hair is lost from the scalp (alopecia areata totalis) or from the whole body (alopecia areata universalis).
3. Telogen effluvium: Telogen effluvium is characterized by the early entrance of a large no of hairs in to telogen phase at one time.
4. Chemotherapy-induced alopecia: This type of hair loss is occurred due to the side-effects of cancer therapy.[10]

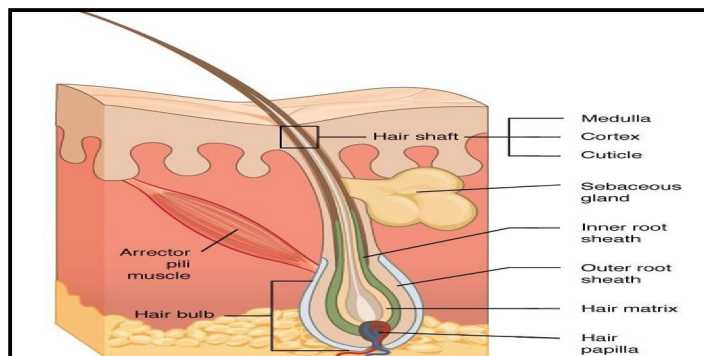


Fig. No. 01: Structure of Hair

HAIR GROWTH CYCLE:

1. The Anagen or Growth Stage: The hair grows and thickens in the anagen stage as the cells in the hair bulb proliferate rapidly. It lasts for about three to five years before hair follicles become dormant.
2. The Catagen or Intermediate Stage: It is the transition phase when the hair follicles prepare themselves after active growth for the resting stage, and it lasts around one to three weeks. The appearance of club hair characterizes this intermediate phase when the hair shaft separates from its roots. The hair follicles shrink and lose about 15% of its diameter as their deeper portions collapse

3. The Telogen or Shedding Stage: It is the final stage of the hair growth cycle that starts with resting and then shedding of hair. The hair follicle remains dormant, and the hair shaft stops growing. Up to 15% of our body hair is in this stage at any point in time [11, 12]

HOW HAIR OIL WORK:

Hair oil is the moisturizing agent. It's moisturized the hair follicle and prevents dryness. it has enhanced penetration and reaches up the hair follicle; it increases the circulation of blood in scalp, thereby increasing hair growth and reduce graying of hair. Also helps to bring the nutrients to the scalp, which then work by nourishing the hair and it also acts like a stress buster which is one of the causes of hair fall.

DIFFERENT NATURAL PLANT USED IN POLYHERBAL HAIR OIL:

Sr. No	Name of Plant	Part Used	Significance
1.	Hibiscus Rosasinesis	Flower Petals	Stimulate thicker hair growth, prevent premature graying, hair loss, natural emollient, as hair conditioner
2.	Curry leaves	Leaves	Prevent hair fall and graying of hair
3.	Aloe -vera	Dried leaves	As conditioner and moisturizing effect, promote hair growth and nourish hair. The combination of aloe pulp and coconut oil is used as hair and scalp oils, these oils result in healthy, strong, dandruff-free hair
4.	Shikakai	Fruit	It is used as a natural cleanser for sensitive scalps or to control dandruff. It promotes hair growth, strengthens hair roots and gives long beautiful hair.
5.	Coconut oil	Fruit	Nourishes of hair, moisturizing effect vehicle, stimulates hair growth by unclogging pores
6.	Neem	Leaf	Cure scalp problems, Makes lustrous and healthy hair,, Promotes thicker, stronger hair growth, Cooling and soothing effect, Prevents premature greying
7.	Liquorice	Root	Moisturizes the scalp, Helps with hair growth, Prevents premature baldness, Effective hair treatment.
8.	Fenugreek	Seed	For dandruff or a dry, itchy scalp, growing thick , shiny hair
9.	Onion	Fruit	Treats dandruff, Inhibits hair thinning , Slows down premature graying, Nourishes dry or brittle hair.
10	Brahmi	Leaves and stem	Elimination of dandruff, Prevention of split end, gives soothing effect
11.	Eucalyptus oil	Leaves	Reduce hair loss, Nourishing the scalp, Promote hair growth.
12.	Bhringraj	Leaves	Prevents hair fall, promotes hair growth, hair lustrous, Repairs hair damage, Treats baldness
13.	Tulsi	Leaves	Strengthening the hair roots ,Prevent bacterial and fungal infection.
14.	Jatamansi	Rhizomes	Promotes growth of hair, Beneficial for smooth, silky and healthy hair.
15.	Shatvari	Root	Smoothe the scalp, Strengthens the roots of hair, Maintain colour and luster. [13,14]

EVALUATION OF POLYHERBAL HAIR OIL:

1. **Specific gravity:** Specific gravity of the oil is determined by using specific gravity bottle.
2. **pH:** Digital pH meters were used to measure the pH. The pH meter bulb was dipped into a beaker containing herbal hair oil. The pH values that were obtained are recorded.
3. **Viscosity:** It is the calculation of a liquid's resistance to flow; the higher the viscosity; the greater, the resistance to flow. Ostwald viscometer was used to calculate viscosity the viscosity.
4. **Refractive index:** Using the refractometer it is determine. [14-17]
5. **Organoleptic property:** Colour, physical, state and odour were manually determined for various organoleptic properties. [18]
6. **Sensitivity Test:** Take the specific gravity bottle, rinse it with distilled water, dry it in oven for 15 minutes, cool, close it with cap and weigh it (a). Now fill the same specific gravity bottle with the sample and close it with cap and again weigh it (b). Determine the weight of sample per milliliter by subtracting the weight (b-a).
7. **Phytochemical Screening Tests:** to identify polybatannins, saponins, flavonoids, steroids, alkaloids, carbohydrates, proteins, anthroquinonine, oil and resin, terpenoids and glycosides etc. [19,20]

II. CONCLUSION

Herbal cosmetics have become progressively common in the personal care industry and there is a high requirement of it in everyday life as it lack of harsh chemicals compare to synthetic chemical containing formulation. Polyherbral hair oil provides essential nutrients and demanded to save the proper function of the sebaceous glands and support the growth of natural hair. This review helps to researcher to look for area of problems where easy to solution regarding hairs and also provides selection of best herbs utilize in the preparation of dosage form for treating the hairs problems with cost effectiveness and its better stability.

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