

A REVIEW OF FORMULATION AND EVALUATION OF HERBAL HAIR LOTION

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ABSTRACT

Prime object of present study is to develop and evaluate hair oil absolutely from herbal origin. Nowadays, people are interested in hair preparations and conditioner materials, such as shampoos, hair tonic and conditioner formulations containing herbal extracts. Hair tonic is a product which is used to style hair. The objective of present study involves preparation of herbal hair tonic by using jojoba, tulsi, and coconut oil and its evaluation for antifungal and antibacterial activity. The final preparation of these ingredients is formulated in batches with change in concentration. Each formulation is tested for antibacterial and antifungal activity. The experimental paradigms used were primary skin irritation test and hair growth activity including number of hair, length of hair and hair growth initiation as well as hair growth completion time. Significant increase in hair numbers and length were observed after topical application of the formulation. The time required for complete hair growth was also considerably shortened. The result

of treatment with formulated herbal hair oil was comparable with that of minoxidil, which was taken as a standard. The formulation gives good results for antifungal and antibacterial activity also the formulation having good consistency good spreadability, homogeneity, appearance and pH.

KEYWORDS: Curry leaf, Antifungal activity, Antibacterial activity, Hair tonic, Coconut oil, Aloe vera, Prop root of banyan tree, Hibiscus, Vit .E Capsule.

INTRODUCTION

Hair is one of the vital parts of the body derived from ectoderm of the skin, is protective appendages on the body and considered accessory structure of the integument along with sebaceous glands, sweat glands and nails. The medical term for hair loss is alopecia. Alopecia can be temporary or permanent. The most common form of hair loss occurs gradually and is referred to as “androgenetic alopecia” meaning that a combination of hormones (androgens are male hormones) and heredity (genetics) is needed to develop the condition Herbal cosmetics referred as products are formulated using various permissible cosmetic ingredients to form the base in which one or more herbal ingredients are used to provide defined cosmetic benefits only, shall be called as “Herbal Cosmetics” or “Natural Cosmetics”. It is made up of dead keratinocytes, the matrix cells, and dermal papillae situated in the innermost end of the follicle. They employ protection, sensory functions, controls temperature, and provide attractiveness^[1]



Fig. Amla Powder.



Fig. Hibiscus Flower.

To overcome these, human takes many measures by applying many cosmetics for each. Hair oil is one among them used to solve almost all of these problems^[2]. The most important bioactive compounds of plants are alkaloids, flavonoids, tannins and phenolic compounds^[3,4] It is well accepted that the whole part of HRS such as stem, roots, flower, and leaves had been used as traditional and folklore medicine.^[5,6] The flowers usually used in herbal teas and food coloring and in some countries, they are eaten as salad or pickles proven. This shows that this plant is not harmful and safe to our bodies. The leaves have been used in healing processes due to their antioxidant, antityrosinase. and anti-bacterial activities.^[7,8] Herbal Cosmetics, here referred as Products, are formulated, using various permissible

cosmetic ingredients to form the base in which one or more herbal ingredients are used to provide defined cosmetic advantages only, shall be called as "Herbal Cosmetics". The herbal cosmetics are those when natural herbs and their products used for their aromatic value in cosmetic preparation among consumers for herbal products triggered the demand for natural products and natural extracts in cosmetics preparations.^[9]

The herbal lotion are those when natural herbs and their products Used for their aromatic value in cosmetic preparation among consumers for herbal products triggered the Demand for natural products and natural extracts in cosmetics preparations. Lotions are liquid preparations that is for external application without friction. They are applied directly to skin with the help of some absorbent material, such as, cotton wool or gauze soaked in it. Lotion may be used for Local action as cooling, soothing or protective purposes.^[10]

HUMAN HAIR

Human hair has about 65-95% of its weight in proteins, more 32% of water, lipid pigments and other components. Chemically, about 80% of human hair is formed by a protein known as keratin, with a high grade of sulfur. Keratin is a laminated complex formed by different structures, which gives the hair strength, flexibility, durability, and functionality^[11]. The physicochemical properties and shape of the hair is the direct result of the organization of its various structural elements, proteins being the most significant. Hair shape is defined in the hair follicle: large hair follicles produce "terminal" hairs (scalp), small follicles produce fine "vellus" hairs (body hair), curved follicles produce curly hair in all ethnicities.^[12]

MATERIAL AND METHODS

Preparation of extracts

Fresh leaves of *Osmium sanctum* were washed under tap water and then kept for 36 hr. for drying. After drying those leaves cut into small pieces 10 gm of small pieces are weighed and these pieces are then fed to the stirred type batch reactor with 150ml of methanol. The speed of agitation was kept at 500, 700, 1000 rpm the extracted sample at known interval of time was collected.

Herbal hair tonic formulation

For the formulation of herbal hair tonic Jojoba oil and Tulsi oil used as active constituents and coconut oil is used as base of formulation. Jojoba oil is easy to mix with Tulsi oil hence firstly both the oils are mixed together in a separate beaker, in another beaker coconut oil is

added then mixture of jojoba and tulsi is added in beaker containing coconut oil. Coloring and perfume is added for increasing attractiveness of formulation. Finally it is stirred on mechanical shaker for proper mixing and consistency of formulation.

Collection and authentication

The fresh plant of *R. officinalis* Albus was collected from Central Institute of Medicinal and Aromatic Plants in the region of Field Station, Allalasanra, Bangalore, India, in the month of December to January 2012. The plant material was identified and authenticated by Mr. Siddulu, Lecturer of Botany, Nagarjuna Government Degree College in Nalgonda, Telangana. The herbarium specimen was prepared and deposited in the Department of Pharmacognosy, under the voucher no: NCOP/Ph'cog/2011-2012/042, for future references.

Extraction

About 600 gm of the whole aerial part of the plant was taken and extracted with methanol in a Soxhlet apparatus and the extraction was completed in 32 hours when the 175iphoning was colorless. The extract was made solvent-free with the help of rotary vacuum evaporator and percentage yield was calculated. Further, the preliminary chemical tests were performed to identify the chemical nature of the extract,^[13,15]

Evaluation parameters for 1% herbal lotion^[16,17]

- 1] Irritancy
- 2] Globule size determination
- 3] ViscosityStability studies by freeze thaw method
- 4] Fourier transform infrared spectroscopy
- 5] Sterility test

INGREDIENTS

INGREDIENTS	QANTITY	USES	REFERENCE
Hibiscus flower	8 flower	Prevent hair fall	[18]
Curry leaves	2.5gm	Promoting hair growth	[18]
Black cumin	10gm	Moisturize hair&scalp	[19]
Neem leaves	50-60gm	Reduce drandruff	[18]
Aloe	150ml	Protect it from damage	[19]
Onion seed	5gm	Prevent breakage	[18]
Vit E Capsule	2 capsule	Hair growth, scalp growth	[20]
Camphor	2-3	Improve overall structure	[21]
Aerial prop root	6-7 roots	Reduce hair loss	[19]
Fenugreek seed	5gm	Nourish the scalp	[18]

Amla powder	30gm	Smoothening hair cuticles	[18]
Coconut oil	10-15 drops	Improve skin texture	[19]
Rose water	5%	Reduce wrinkles	[18]
Glycerin	2-5%	Humectant	[19]

SUMMARY

Formulation of herbal lotion the topic we have choose for the prepration and extraction in which we had added references from various research paper, article & review paper. During Literature survey we have observed various type of herbal ingredient, We chose 5 to 6 main ingredient. In which curry leaf have so many herbal property to nourish hair. And in which we have added sufficient quantity for further extraction. We have choose this product due to measuring hair problem in youth & Adult. It will definitely solve the problem of population, If it is distributed in market the herbal & natural products that have used will attract crowd.

CONCLUSION

The lotion is effective at promoting hair growth and can be an alternative to growth products.

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