

Review on Formulation and Evolution of Potential Harbal Hair Growth Oil

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Abstract: Objectives: - Hair plays a vital role in the personality of human for their care we use lots of Cosmetic products. Herbal formulation always have activity Comparatively lesser or no side effect with Synthetic. this study aimed at the importance of polyherbal hair oil for treatment of Common hair problems Suchay baldness, hair fall, grey hair , dryness and most Common is dandruff. The various herbal ingredients are used in the formulation as- Hibiscus, Rose, neem leaves, Curry leaves, fenugreek Seed, Bhringaraj leaves. Amla, Heena, Tulsi, Sesame oil, Castor oil, Coconut oil, Camphor, Banyan Root, Rose merry. All ingredients provide essential nutrients such as vitamin, antioxidant, protein, terpenoids, and many essential oils to maintain normal function of Sebaceous gland.

The formulated for its acid value, oil evaluated organoleptic properties, Saponification value, viscosity, ph etc. all the parameter were found to be good and within the Standards.

Keywords: Hairs, herbal, Cosmetics, formulation, viscosity, Hair Care, Evaluation

I. INTRODUCTION

Hair is one of the vital parts of the body considered to be protective appendages on the body and accessory Structure of the integument along with sebaceous glands , Sweat glands And Nails. The basic Part Of Hair is bulb, root ,shaft. Hair Loss is a dermatological disorder, and the surge for discovering natural products with hair growth promoting potential is continuous. Each hair growth in three cyclic phases' viz... anagen (growth), catagen (involution) & Telogen (Rest) Herbal cosmetics were gaining tremendous demand in the market. Herbal Hair oil were serving the purpose of Hair treatment. Herbal hair oil not only moisturises Scalp but also Reverses dry scalp and dry hair conditions. It provides essential nutrients required to maintain normal functions of the sebaceous gland and promote natural hair growth.

Objective

- The objective of this research work was to formulate the herbal hair growth oil which does not cause any side effects or adverse reaction.
- The hair growth oil were gaining demand in the market now a days. Herbal hair oil provide moisture to the scalp and also help in dry scalp and dry hair condition.
- It contain essential nutrients which are natural ,non-toxic to the hair. Polyherbal hair oil providing nutritional value to the hair.

PLANT PROFILE

Herbal Drug Information

Hibiscus.



Biological Name : Hibiscus Rosa sinensis

Family: Malvaceae

Synonyms: Jamaica sorrel, Red sorrel

Active Constituents: Hibiscus is rich in antioxidants, Such as flavonoids and phenols. Lipids, and citric acid.

Use:- medicinal use

Stimulate Hair Growth

conditions the Hair

prevents Hair fall

Fenugreek Seed / Methi leaves



Biological Name : Trigonella foenum graecum.

Family: Fabaceae.

Active Constituents: Trimethylamine, Trigonelline, Quercetin

Uses: Reduce dandruff, promotes hair growth & Shows anti-fungal activity

Rosemary



Biological Name - Rosmarinus officinalis

Family-Lamiaceae

Active Constituents- Rosemary Contain phenolic, including Flavonoid and tannins nonphenolic antioxidants, including 1.8-cineole, a-pinene and camphor .

Uses-It Stimulate Blood circulation to Scalp in hair care & encourages hair growth. Showing anti photogenic & anti-oxidant property

Castor oil



Biological Name-Ricinus communis L

Family –spurge family(Euphorbiaceae)

Active Constituents- Phytosterols, tocopherols, carotenoid.

Uses: Lubricate the hair shaft,increases flexibility and also treat dandruff.

Neem



Biological Name- Azadirachtaindica

Family-Meliaceae.

Active Constituents-The most important active Constituent is Azadirachtin & others are nimbolinin, nimbidin, gedunin

Uses-it reduces hair loss by improving blood circulation in the Scalp & hair The Sulphur in juice helps in production of essential collagen that promotes. hair growth

Amla



Biological Name - Phyllanthus emblica Linn.

Family - Euphorbiaceae, Indian gooseberry.

Active Constituents - Vitamin C gollatann 5%, Carbohydrate minerals, phenol acid, garlic acid, amino acid.

Uses - boost hair growth, Good for Skin, hair & eyes Promots immune function

Coconut oil



Biological Name : cocos Nucifera family
-Arecaceae.

Active constituents :- Coconut oil is made up of a variety of fatty acids, including: Lauric acid (50%) caprylic acid (8%). caproic acid ca myristic acid (8%)., palmitic acid (8%). Stearic acid (2%). . Oleic acid (6%), Linoleic.(2%) **uses** :-Moisturizes, reduces protein loss ,prevent breakage, protect from from heat damage, treat fungus, Repair the scalp moisture barrier, prewash protector ,conditioner ,styling aid

Banyan Root



Biological Name - ficus Bengalese's Linn.

Family – Mulberry.

Active Constituents.- It consists of flavonide, amino acid, Carbohydrate, Steroid, Saponin & tannin.

Used- ficus Bengalese's root extract and it's compound are used to increasing hair growth & decreasing hair loss.

Curry leaves-



Biological Name - Murray koenigii

Family - Rutaceae

Active Constituents -Bigmahanine, murrayanine, murraya-zolinol

Uses-Promote hair growth & Strengths of hair root

Almond oil



Biological name- prounus Amygdalus Dulcis

Familly-Rusaceas.

Active Constituents- glycerides of Olic, linoleic , palmitic myristic , palmitoleic ,oleic ,margaric , stearic , linoleic, linoleic, arachidonic ,dad oleic , behenic ,and erucic acid

Uses : Almond oil can be used to moisture , hydrate and soften skin

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INGREDIENTS

Sr. No	Ingredient	Quantity
1	Coconut oil	2ml
2	Hibiscus	8-10 leaves
3	Rosemary	5-6 Drop
4	Banyan root	10%
5	Neem leaves	5-6 leaves
6	Amla	5-10 % total volume
7	Fenugreek seed	2-3 spoon
8	Curry leaves	2-4 leaves
9	Almond oil	2ml
10	Custor oil	1ml

Method of Preparation

The part of plants like fenugreek (Seeds) are collected from local Market.
 hibiscus (Flower) are dried in Sunlight for Converted into Course powder.
 The extract were prepered by decoction method & the prepered extracts were stored in wellclosed Container .
 Precisely all the dried & fresh herbs, hibiscus,Amla, Fenugreek were weighed of triturated in mortor& pestle.
 After mixed almond oil, coconut oil uniformly.
 In that also mixed Amla extract keep aside for overnight.
 Ther add curry leaves. + neem extract & boil until colour of curry leaves changes to dark brown colour.
 Dry feresh genial roots of Banayan in oven at 60°C for 4-6-hr. Then grind it them into powder & use it to make hair oil by boiling it in coconut oil.
 And place in Amber coloured bottle

Evolution of herbal hair growth oil.

1. Acid Value
2. Saponification value
3. pH
4. Viscosity
5. Specific gravity
6. Refractive index
7. Organoleptic Property

pH - the pH meter was calibrated with buffer Solution of pH 4 and pH7. the electrode wabathed in hair oil form a few minutes until the pH returned to normal.

Viscosity:- A Brookfield viscometer was used to viscosity with Spindle number 6.50 ml of hair oil was poured into Se viscosity was tested at 100 rpm beaker,

Acid Value -The of acid value is the number of mg potassium hydroxide required neutralize the fat to free fatty acid in 19 of fat. To measure the acid value of polyherbal hair Oil 10ml of oil was added with 25ml of ethanol, and 25ml of ether phenolphthalein was added as an indicator and titrated 0.1m potassium hydroxide.

Saponification Value - The Saponification Value is determined by Saponifying, a known amount of oil with excess of KOH solution then titrating Solution the remaining KOH with an acid solution .A lower saponification Value indicates a higher molecular weight of fatty Versa. acid and Vice versa.

Specific Gravity-The specific gravity of coconut oil can determined be by calculating the ratio of weight of unit Volume the weight at 25°C of Sample to of Unit Volume of water Specific gravity is parameter that can be Used to -d. Fats. monitor the quality of oil and liquid

Refractive Index-Refractive Index is expressed as ratio "between the sine of angle of incidence to the sine of the angle of refraction when a ray of light of known wavelength passes From air into the oil or fat. The refractive index of coconut oil is between 1.43 light 1.46 and 1.46 travels times which means through vaccum that 1.43 to faster than it travel through Coconut oil.

Organoleptic Property -Organoleptic properties of coconut oil include its and appearance, color, Flavor, taste, texture, overall acceptability. Some Organoleptic properties are smell- using enzymes without acid or Color Flavour Fishing has typical fresh coconut smell colour-Prolonged heating and constant Stirring can Oil turbid Flavor- Associated with sweetish burnt/ roasted coconut. Taste-tongue associated with sucrose solution.

Marketed Search For Herbal Hair Growth Oil

1.Mamaearth hair Oil

Stress, pollution and unhealthy lifestyles can lead hair troubles, hair fall being the most common one. Mamaearth hair oil helps you to overcome this problem.



The mamaearth hair oil is dermatologically tested and Can oil be used for all skin type. There is no harsh chemical and is free of paraben and mineral oils.

Introducing your favourite mamaearth hair oil with new and improved Formula for even stronger, smoother and shinier. It has lightweight non-sticky Formulations. With This natural and a good Fragrance oil and toxin free hair loss oil helps you to gel stronger and healthier hair with goodness of nature.

Price 419/- (For 150ml)

Uses -

Hair Fall Control oil which contain Sulfur and potassium.

It improve hair growth, reduces hair fall and unblock hair follicles.

It has natural goodness of amla, bringraj and castol oil

It helps in nourishing scalp which gives suitable envirmint for more growth of hairs

Ingredients -

- 1) Onion seed oil- increases blood supply to
- 2) Redensyl – works against hair loss. filmond oil- Omega-
- 3) fatty acid, vitamin E in almonds helps to treating hair loss and damaged hair
- 4) Castor oil- improve absorpction of other ingredients and damaged hair and strange moisture
- 5) Amla oil - promotes overall health of hair and scalp

Sesa Ayurvedic

This Ayurvedic medicine is a mixture of 12 medicinal herbs and 5 oils boiled in milk for 22 hours Using the ancient kshirpakvadh unlike other oils in the market this oil contains zero mineral oil.

Sesa oil is made to effectively control hair fall. Stimulate hair growth, and help delay premature greying with its natural antifungal and antimicrobial properties .sesa oils contains combination of bringraj ,triphala and godhuma that helps in repairing damaged hair additionally ,the presence of lemon oil keeps the scalp infection free with it excellent antidandruff properties. Sesa ayurvedic hair oil is clinically proven contain natural actives ,anti-hair fall properties and suitable for all hair types.

Price- 295/- (for 50ml)



Uses-

- Effectively control hair fall, stimulate hair growth premature and help in greying.
- Prevents bacterial infections and fungal infection form forming of scalp
- It relaxes nerves & provide quick relief from headachae.
- Improve blood circulation and enhances hair growth.
- Natural ingredients like bhringrajgodhumahels to suppot natural hair follicles to grow out.

Ingredients.

- Bhringraj -Anti Fungal, antimicrobial properties.
- Triphala -natural tonic antimicrobial hair and nourishes scalp.
- Godhuma -Stimulate micro-circulation & prevent hair loss.
- Lemon oil -natural anti-dandruff active with antifungal properties.
- Hibiscus -excellant natural conditioner and having antioxidants properties

Indulekha hair oil -

Indulekha Bringha oil is an ayurvedic propriety Medicine recommended by doctors for the Regulation of hairs and Scalp Condition like hair fall, dandruff, etc. It is quality product from trusted brand that offers good Result. The Special Manufacturing procedure helps to extract entire medicinal quality from leaves of make it effective. It is clinically proven &recommeded by ayurvedic exports.

It is free from parabens, Sulphates, Bilicones, Synthetic dyes.

100%. Natural Fragrance & colour. Indulekha is crafted using centuries old wisdom from Ayurvedic Granthas. Each herb is cultivated in lushness of kerala of hand picked by experts before Manufacturing in Sunlight for seven days

Price:-253/-



Uses:

1. It can Reduce hair fall & promote hair growth.
2. Aloe vera in indulekha oil can prevent Scalp itching.
3. Indulekha oil can used to treat all types of psoriasis.
4. Indulekha oil can treat dandruff.
5. Bringraj present in this oil help to grow the hair.

Ingredients

Bhringhiraj (Rich in antioxidant of mineral) - Reduce hair fall,
 Amla (Rich in Source of Vitamin) - increase Blood circulation in scalp.
 Coconut oil (Smoothing)
 Almond
 Aloe Vera (Prevent Scalp itching)
 curry leaves

khadi Naturals Hair oil

The khadi natural hair oil which provides a luminous shine to the hairs ,strengthen the weak hair and stimulates hair growth .Herbal hair oil is considered to be rich in hair nourishing minerals like amino acids and vitamins also helps in reducing hair fall .

Khadi natural hair oil is made under the guidance of qualified Ayurveda doctors and are made up of herbal active ingredient Those khadi Natural hair Oils Ayurvedic hair care solution crafted using the traditional paaksindh method formulated to prevent hair fall, premature greying, and dandruffs Add a lustrous shine to the hair and provide intensive nourishment from root to tip .Khadi natural hair oils also helps with damaged hairs and hair growth while enhancing hair beauty and health’

It contains the finest quality herbs that reduce hair loss .These oil act as natural conditioner and moisturiser to provide shiny hair keeps flakes at by whiles soothing the inflamaed scalps to control the hair thinning. This oil is free from paraben and silicon and suitable for all hair types .

khadi Natural hair oil are made with herbal active

ingredients that are formulated from Organically grown pure plant extracts. They mode to WHO, GMP, and ISO standard.

Price-109/-



Uses:-

It is used for hair growth.
it soothing the inflamed scalp to control hair thinning.
It helps to prevent hair fall, premature greying and dandruff.
These oil helps to hydrate hair and make it smooth and shiny.
It provides intensive nourishment from root to tip

Ingredient:-

1. Almond oil:- (prunus dulcis) i for strengthen and Soften hair and protect from Sun damage.
2. Bhringraj :-Ext (Ecliptaprostrata); to promote hair growth and scalp health.
Black seed oil (prunus dulcis): for reducing the hair loss sesame oil (sesamum indicum): For dandruff as it has antibacterial and antifungal properties. 5) Amba Ext (Emblica officinalis) stranded hair strands reducing breakage and improving overall hair growth

Bioteque [Advanced Ayurveda]

[BHRINGRAJ] Hair Growth [Therapeutic Hair Oil]

Bioteque bio Bhringraj Therapeutic Hair Oil for falling hair is a potent solution to Hair loss, including alopecia. This therapeutic hair oil nourishes hair follicles ;promoting strong and shiny hair. Bioteque bhringraj hair oil nourishes the scalp. strengthens hair strands and diminishes greying. Made with 100% natural botanical extracts, our organically pure hair oil is free from harmful chemicals. Dermatologically tested, it is suitable for all skin types and safe for regular use.

Price :200 rs

Use:

Helps to strengthen hair.
Helps to prevent hairfall.
It nourishes the scalp and hair.
Promotes hair growth.
Improves hair texture and shine.

Ingredients

Bhringraj [prevents hair loss and nourishes scalp for healthy hair]

Indian Gooseberry [Improves overall scalp health and promote hair growth] ii. licorice [Rice demulcent properties that soothe the scalp]



II. LITERATURE REVIEW

- 1] Rohan Khedekar: Rohan.et.al (2018) The herbal cosmetics are nowadays widely used because of less side effects with better safety and security. The polyherbal hair oil was aim to formulate hair oil for hair growth with no side effects. The formulated hair oil contain different herbal plant which are traditionally utilised for hair growth plant used. Hibiscus, Curry leaves, Neem leaves, Rosemary leaves, Almond oil, Coconut oil. (2018)
- 2] Suman K. G kumar B and Mukopadhyay.et.al (2022): Cosmetics play a vital role in human life. Herbs are used for beautification purpose of body. Preparation of cosmetics,flavouring and colouring agent. The study aims reviewing the importance of herbal oil and their use in the common hair problem such as 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, antioxidants etc. Nowadays side effects is a major problem after using any beauty product due to which herbal products are preferred because of having less probability of any types of side effect.
- 3] Dr. Sudheer Kumar : Kumar. Et.al (2022) :Dr. K .Sudheer Kumar : Dr. Samuel George Institute of pharmaceutical sciences markapur, prakashamDist : Andhra Pradesh India. Mother Teresa Institute of pharmaceutical Education and Research (Miper, Kurnool , Andhra Pradesh , India. Vol. 8. Issue 9, 2022, ISO 9001 : 2015 certified journal.World Journal of pharmaceutical and life science. The present work of his is aimed is to develop effective organic poly-herbal hair oil for daily use and to prevent various hair problem, including alopecia and scalp psoriasis. These oil were subjected to evaluations of organoleptic properties , chemical and analytical basis. All four formulations were compared based on the result of evaluations and the effective one was selected as the best.
- 4] venkatarammysore and Arpita arghyaVenkatramet.Al (2022) :International Journal of trichology of hair research society in india. Venkat centre of skin, ENT and plastic surgery (Affiliated to RGUHS), Bengluru, Karnataka, India. Hair oils are used all over the world. They are usually easily accessiable and are inexpensive . A wide variety of oils have been used and newer ones are coming up every day. The primary function of most of hair oil is to act like an emollient but unique characteristics of various hair oil suggests its action just more than emollient action. This action focuses on different types of hair oils and their possible beneficial effects on the hair.
- 5] Pushpendra Kumar Jain et.al : International journal of pharmatech research volume (9) 2016 : The main objectives of this work is to develop such as herbal hair oil formulation which can resolve the problem related to hair fall and various other diseases.the hair oil was prepared individually and in a varying concentration of all three herbs and a mixture of all the three herbs in fixed proportion using coconut oil as base.

6] R.R Shah: R.R Shah ,S.A Mohite ,N.R Patel Adarsh College Of Pharmacy ,Vita, Tal.KhanapurDist.Sangali, Maharashtra , India.Volume-8 ,Issue 1, Year-2018.Hair is a vital part in our personality of human and for their care we use lots of products .

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