

How to Cite:

Chaudhary, S., Singh, K., & Singh, A. (2022). A review article on polyherbal hair oil. *International Journal of Health Sciences*, 6(S3), 11089–11099.
<https://doi.org/10.53730/ijhs.v6nS3.8558>

A review article on polyherbal hair oil

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Abstract--The idea of beauty and cosmetics is as historic as mankind and civilization. So, they use various beauty merchandise which has herbs to appearance captivating and young. natural cosmetics are nowadays widely utilized by commonplace human beings because of the concept of fewer aspect consequences and a higher protection and safety profile. the prevailing work aimed to formulate natural oil for trendy reasons (utility in hairs) using numerous herbs. T: natural cosmetics have burgeoning demand inside the global market and are an inestimable presence of nature. There are huge spans of natural cosmetic products to meet the beauty regime. The presence of some of phytochemicals and botanicals in the herbal products have twin stuff, one which they're used as cosmetics for body care and another that phytochemicals amend the organic features of the human frame certainly resulting in wholesome skin and hairs. herbal hair oil no longer simplest moisturizes the scalp however also converse dry scalp and dry hair conditions. It bestows several crucial vitamins required to preserve everyday functions of the sebaceous gland and sell natural hair increase.

Keywords---mankind, consequences, cosmetics, beauty.

Introduction

The concept of beauty and cosmetics is as old as humanity and civilization. That's why they use various cosmetics with plants that look attractive and youthful. Native American plants and their purpose are popular around the world (Sanju et al., 2006).⁽¹⁾ As the name suggests, herbal extracts refer to plant extracts. It is an

ancient methodology because its origins were discovered in the holy Vedas and the Unani scriptures. As the cognizance said that the chemical medicines are not always work as magic bullets and they may have side effects.

Hair is an epidermal derivative which is one of the vital parts increasing the overall elegance of the body. Hair fall, dandruff, lice, spilt ends, grey hair are few problems involved with hair faced by human.^[2] 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]. Herbal cosmetics are in high demand due to the increasing interest of mankind towards them because they are more effective with nil or less side effects, easily available ingredients etc. Hair cosmetics are now supplemented with herbs and are very popular compared to synthetics^[2]. Herbal hair oil is more preferred and is used in many hair diseases^[2]. They promote hair growth, improve hair beauty and prevent hair loss^[2]. Hair oil not only promotes hair growth, but also provides the necessary moisture to turn the scalp into beautiful hair^[2] The presented work is focused on the preparation and evaluation of polybyline hair oil with herbal ingredients such as curry leaf, funnel, amla, ficus, henna, hibiscus, vetiver, fenugreek in coconut oil. All of these plants have known traditional hair care potential.

Materials and Methods

Collection of Plant Materials The polyherbal hair oil was prepared.^[2] by collecting various plant materials like ficus root, curry leaves, bringaraj leaves, henna leaves, hibiscus leaves from herbal garden and vetiver roots, methi seeds and amla fruits were procured from local market

Various herbs used in polyherbal Hair oil

S. NO	BOTANICAL NAME	FAMILY	PLANT PART USED	CHEMICAL CONSTITUENTS	USES
1	Murry koenigic	Rutaceae	Leaves	a-copene, a-pinene	Prevents hairfall
2	Ficus Benghalensis	Moraceae	Roots	Bengalinoside flavonoid glycosides	Strengthens hair
3	Elipta Prostrata	Asteracear	Flowers	Demethylwedelolactone, desmethylcuedelolacone-7 glucosude.	Helps in boosting bloodcirculation to hair follicles
4	Phyllanthus emblica	Phyllanthaceae	Fruit	Vitamin c gullic acid chebulagic acid	Hair conditioner
5	Lawsonia inermis	Lythraceae	Leaves	Gallic acid, white resin ,sugar, tannins	Hair colorant help in hair growth
6	Hibiscus	Malvaceae	Flower	Phenols ,guinies, flavanoides .	Nourishes and thickens hair
7	Chrysopogon zizanioides	Graminae/poaceae	Roots	Antioxidant and Antimicrobial activites of vetiveria	Flavoringagent ofNervine tonic
8	Cocos	Arecaceae	Oil	Fatty acids, caprylic acid	Moisturiser,

	nucifers			, capric acid.	vehicle
9	Trigonella Foenum- graecum	Leguminosae	Leaves	Lipids, Alkaloids, Flavonoids, Fibers	Moisturises hair and replenishes hair growth

Curry Leaves



Fig 1.1. Curry leaves

Biological source: Dried leaves of *Murraya koenigii*

Family: Rutaceae

Use: Prevents hairfall and premature greying of hair.

Plant Description

Curry leaves are little in size and long, slim, and oval in shape limiting to a point, averaging 2-4 centimeters long and 1-2 centimeters in width. The gleaming, dull green leaves develop pinnately along a stem, and each branch can hold up to twenty, firmly bunched leaves. Curry leaves are incredibly fragrant and taste solid that has been contrasted with citrus, asafoetida, anise, and lemongrass. When cooked, Curry leaves have a gentle and marginally sharp chomp with a nutty smell.^[3]

Chemical constituents

The oils from the curry leaves were found to contain for the most part oxygenated monoterpenes. Utilizing GC and GC-MS 33 constituents were found with linalool (32.83%), elemol (7.44%), geranyl acetic acid derivation (6.18%), myrcene (6.12%), allo-ocimene(5.02), α -terpinene (4.9%), and (E)- β -ocimene (3.68%) as the primary mixtures.^[4]

Banyan



Fig 1.2. Banyan plant

Biological source: Dried roots of *Ficus benghalensis*

Family: Moraceae

Use: strengthens hair, prevents hair loss

Plant Description

Banyan, (*Ficus benghalensis*), likewise called Indian banyan or banyan fig, curiously molded tree of the mulberry family (Moraceae) local to the Indian subcontinent. The banyan arrives at a level up to 30 meters (100 feet) and spreads horizontally endlessly.^[5]

Chemical constituents

The structure of hair oil includes 50-60% Capric Caprylic Tri-Glycerides (CCTG) which goes about as a base for the hair oil, The piece further contains 10-20% of Mineral oil which is answerable for saturating the hair of the subject, 25-35% of Coconut Oil for sustaining the hair and the scalp, 0.5-0.88% of Ylang .^[6]

Eclipta White



Fig 1.3 Eclipta white flower

Biological source: Aerial parts of *Eclipta prostrata/ alba*

Family: Asteraceae

Uses: Helps in boosting blood circulation to hair follicles

Plant Description

This plant has barrel shaped, grayish roots. The singular blossom heads are 6-8 mm (0.24-0.31 in) in distance across, with white florets. The achenes are packed and barely winged.^[7]

Chemical constituents

Eclipta alba has been generally utilized in society cure, both Ayurveda and Siddha. The spice *Eclipta alba* contains numerous bioactive parts, for example, coumestans for example wedelolactone and demethylwedelolactone, triterpenes, flavonoids, steroids, polypeptides, polyacetylenes and thiophene-substituents.

Amla



Fig 1.4. Amla fruit

Biological source: Dried fruits of *Phyllanthus Emblica*

Family: Phyllanthaceae

Uses: hair conditioner, treats scalp ailments, promotes hair growth.

Plant Description

The tree is little to medium in size, arriving at 1 - 8 m (3 ft 3 inch - 26 ft 3 inch) in level. The branchlets are not glabrous or finely pubescent, 10-20 cm (3.9 - 7.9 inch) long, normally deciduous. The leaves are straightforward, subsessile and firmly set along branchlets, light green, looking like pinnate leaves. The blossoms are greenish-yellow. The natural product is almost circular, light greenish yellow, very smooth and hard on appearance, with six vertical stripes or wrinkle

Chemical constituents

Emblica officinalis is very high in vitamin C, pectin, polyphenol compounds, gallic acid, ellagic acid, corilagin, phyllantidine and phyllantine (both alkaloids). Its ascorbic acid content ranges from 1000mg to 1700mg per 100 grams.^[6] Also found are hydrolysable tannins puniguconin, pedunculagin and Emblicanin A and Emblicanin B.^[7]

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Henna



Fig 1.5. Henna leaves Biological source: Dried leaves of *Lawsonia inermis*

Family: Lythraceae

Uses: hair colorant, helps in hair growth.

Plant Description

Henna is a tall bush or little tree, standing 1.8 to 7.6 m tall (6 to 25 ft). It is glabrous and multi-spread, with spine-tipped branchlets. The leaves develop inverse each other on the stem. They are glabrous, sub-sessile, curved, and lanceolate (long and more extensive in the center; normal aspects are 1.5-5.0 cm x 0.5-2 cm or 0.6-2 in x 0.2-0.8 in), sharpen (tightening to a long point), and have discouraged veins on the dorsal surface. Henna blossoms have four sepals and a 2 mm (0.079 in) calyx tube, with 3 mm (0.12 in) spread projections. Its petals are praise, with white or red stamens found two by two on the edge of the calyx tube. The ovary is four-celled, 5 mm (0.20 in) long, and erect. Henna natural products are little, tanish containers, 4-8 mm (0.16-0.31 in) in breadth, with 32-49 seeds for every natural product, and open unpredictably into four parts.^[21]

Chemical Constituents

The phytochemicals that are available in the Henna are phenols, anthroquinones and glycosides. Lawsonsone is the dynamic *Kumar* constituent of the Henna leaves. The other synthetic constituents of Henna are gallic corrosive, white tar, sugars, tannins and xanthones.^[22]

Hibiscus



Fig 1.6. Hibiscus rosa -sinensis Birilliant

Biological source: Dried leaves of *Hibiscus rosasinensis*

Family: Malvaceae

Use: nourishes and thickens hair

Plant Description

Hibiscus rosa-sinensis is a rugged, evergreen bush or little tree developing 2.5-5 m (8-16 ft) tall and 1.5-3 m (5-10 ft) wide, with polished leaves and single, splendid red blossoms in summer and fall. The 5-petaled blossoms are 10 cm (4 in) in measurement, with unmistakable orange-tipped red anthers.^[24]

Chemical Constituents

Leaves and stems contain β -sitosterol, stigmasterol, taraxeryl acetic acid derivation and three cyclopropane compounds and their subordinates. Blossoms contain cyanidin diglucoside, flavonoids and nutrients, thiamine, riboflavin, niacin and ascorbic corrosive. Quercetin-3- diglucoside, 3,7-diglucoside, cyanidin-3,5-diglucoside and cyanidin-3-sophoroside-5- glucoside have been disengaged from profound yellow blossoms; every single above compound and kaempferol-3-xylosylglucoside have been segregated from ivory white blossom.^[25]

Vetiver



Fig 1.7. vetiver plant

Biological source: Dried roots of *Vetiveria zizanioides*

Family: Graminae/Poaceae

Use: Nourishes and thickens hair

Plant Description

Vetiver can develop up to 150 cm (5 ft) high and structure bunches as wide. The stems are tall and the leaves are long, slight and rather inflexible. The blossoms are brownish-purple. Dissimilar to most grasses, which structure evenly spreading, mat like root foundations, vetiver's foundations develop descending, 2 meters (7 ft) to 4 meters (13 ft) in profundity.

Chemical constituents

The substance constituents present in the plant are Vetiverol, Vetivone^[27], Khusimone, Khusimol, Vetivene, Khositone, Terpenes, Benzoic acid, Tripene-4-ol, β -Humulene, Epizizianol, vetivenyl vetivenate, iso khusimol, Vetiver oils, vetivazulene^[28], E Zizaene, prezizaene, vetispirene^[29]. Among these, the significant dynamic constituents recognized are khusimol, vetivone, eudesmol, khusimone, zizaene, and prezizaene^[30] which are viewed as the finger impression of the oil.^[31]

Coconut oil



Fig 1.8 coconut oil

Biological source: Oil derived from dried fruits of *Cocos nucifera*

Family: Arecaceae

Use: moisturiser, vehicle, stimulates hair growth by unclogging pores. The oil and milk got from it are usually utilized in cooking and broiling. coconut oil is likewise generally utilized in cleansers and beauty care products.

Plant Description

Cocos nucifera trees have a smooth, columnar, light dark earthy colored trunk, with a mean breadth of 30-40 cm at bosom level, and finished off with a terminal crown of leaves. Tall determinations might accomplish a level of 24-30 m; bantam choices likewise exist. Trunk thin and somewhat enlarged at the base, generally erect however might be inclining or bended. Leaves pinnate, feather molded, 4-7m long and 1-1.5 m wide at the broadest part. Leaf stalks 1-2 cm long and thornless. Inflorescence comprises of female and male helper blossoms. Blossoms little, light yellow, in groups that rise out of kayak formed sheaths among the leaves. Male blossoms little and more various. Female blossoms less and once in a while totally missing; bigger, round structures, around 25 mm in measurement. Organic product generally ovoid, up to 5 cm long and 3 cm wide, made out of a thick, stringy husk encompassing a to some degree round nut with a hard, weak, bristly shell. The nut is 2-2.5 cm in measurement and 3-4 cm long. Three depressed openings of gentler tissue, called 'eyes', are toward one side of the nut. Inside the shell is a slender, white, beefy layer known as the 'meat'. The inside of the nut is empty however to some degree loaded up with a watery fluid called 'coconut milk'. The meat is delicate and jellylike when youthful yet turns out to be uncompromising with development. Coconut milk is bountiful in unripe

organic product however is bit by bit retained as aging returns. The organic products are green right away, becoming caramel as they mature; yellow assortments go from yellow to temple.^[32]

Chemical constituents

The compound constituents of *cocos nucifera* have a few organic impacts, for example, antihelmintic, calming, antinociceptive, cell reinforcement, antifungal, antimicrobial and antitumor exercises.^[33]

Fenugreek



Fig 1.9. fenugreek plant

Biological source:- Dried seeds of *Trigonella foenum*

Family:- Leguminosae

Uses:- Moisturises hair and replenishes hair hair growth

Plant Description

Fenugreek, *Trigonella foenum-graecum* is a herbaceous yearly plant in the family Fabaceae developed for its leaves and seeds which are utilized as a spice or zest. The fenugreek plant might have a solitary stem or might be extended at the stem base. The leaves of the plant are little and trifoliate with oval flyers which are green to purple in color.^[35]

Chemical constituent

Trigogenin, neotrigogenin, diosgenin, yamogenin, 4-hydroxyisoleucine, vitexin, isovitexin, saponaretin, homoorientin, vicenin-1, vicenin-2 and two flavonoid glycosides quercetin and luteolin and steroidal saponins have been secluded from seeds.^[36]

Conclusion

All of the parameters showed that they're within the limits and for the reason that all of the ingredients introduced have many benefits, this oil will help in retaining the exact increase of hair, turning gray hair to black, protecting from dandruff and

outcomes in lustrous looking hair. herbal oil affords several essential nutrients required to preserve the normal features of sebaceous glands and promotes herbal hair growth. The utilization of natural cosmetics greater many folds in personal hygiene and the healthcare system.

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