



REVIEW ON: “COMPARATIVE STUDY OF DIFFERENT CONSTITUENTS OF GENERALLY USED POLYHERBAL OIL”

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ABSTRACT: The herbal products are used to an ancient culture to Morden lifestyle in a day to daily life. Because herbal cosmetics has fewer side effect has a safety and security profile. The constitute used in polyherbal oil is Amla, Hibiscus, Curry leaves, henna, Bhringraj, Almond oil and Coconut oil etc. These constitute are easily available in our vicinity. 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 work aims to provide information about the herbs which help to cure oxidative stress, loss of vitamins, improper circulation of blood, dandruff etc naturally

Keywords _Hair; Polyherbal; Evaluation.

1. Objective –

- To Study polyherbal oil by using herbs such as synthetic curry leaves, hibiscus, henna, almond oil, coconut oil.
- Evolution of polyherbal hair oil test such as pH, saponification value, specific gravity. [1]

2. INTRODUCTION

The pharmaceutical products the herbal cosmetics are prepared from natural herbal ingredients. The cosmetic is defined as the drug which intended to apply to the human body for cleansing, beautifying, promoting attractiveness or altering the appearance with the affecting body cosmetic also includes skincare, cream, ointment, poorer, fragrance lip gloss, fingernail and toes nail Polish may other types of product use.[2]

Hair oils. Indians have a tradition where long tresses are nurtured with the help of pure oils if used regularly. These oils are Mustard in the northern half and Coconut in the rest of India, both nutritionally rich and loaded with medicinal and curative properties. Both are not available in their pure form as hair oils anymore. India tresses have long been oiled and cared with these oils now to more. [3]

Single or multiple herbs (polyherbal) are used for the treatment. When combining the multiple herbs in a day particular ratio, will give a better therapeutic effect and reduce toxicity. This review mainly focuses on the importance of polyherbal and its clinical significance.[4]

Biochemically the hair is composed of protein keratin part integument entry accessory system. Hair loss means alopecia is a dermatological disorder but the pharmacy field searches for a natural product to promote hair growth the different phases of hair growth and hair follicle cycle contain 3 phases anagen (growth phase), catagen (involution) and Telogen (regeneration phase)Anagen in the formulation of hair filaments 2- 8 year phases lengthy phase epidermal cell divided to produce the precursor cell to form the hair cell catagen is the lengthy phase 10 to 5 days the production of a precursor cell. The cessation of growth of hair filament. Telogen is a (3 months) length phase hair follicle that enters a new hair cycle after the end of this phase. This whole process two or three months.[5]

The hair care products are categorized into two main category hair tonic end hair grooming aids the herbal hair oil containing herbal ingredients is called hair tonic the formulation is passed to herbal extract in oil-based That Polyherbal oil not only moisture scalp but also reserve dry scalp and dry hair conditioner.[6]

3. Drug and Excipient profile –

3.1 AMLA -

3.2 Table no 1-Plant Description

Synonyms	1. Emblica Officinalis 2. India Gooseberry 3. Emblica Murry
Family	Phyllanthus
Kingdom	Plantae
Genus	Phyllanthus
Division	Flowering plant
Order	Malpighiales



(1) Figure NO – 1 Amla

3.3 BIOLOGICAL SOURCE – Dried fruit of Phyllanthus Emblica.

3.4 PLANT DESCRIPTION-

The tree is small to medium in size, achieving 1 – 8 m (3 ft 3 inch – 26 ft 3 inch) in height. The branchlets are not glabrous or finely pubescent, 10–20 cm (3.9 – 7.9 inch) long, generally deciduous. The leaves are simple, subsessile and intently set along branchlets, light green, similar to pinnate leaves. The flowers are greenishyellow. The fruit is almost spherical, light greenish-yellow, quite smooth and hard on appearance, with six vertical stripes or furrows.[7]

3.5 CHEMICAL CONSTITUENT -

Emblica Officinalis is very excessive in vitamin C, pectin, polyphenol compounds, gallic acid, ellagic acid, corilagin, phyllantidine and phyllantine (each alkaloid). Its ascorbic acid content material ranges from 1000mg to 1700mg per 100grams. Also discovered are hydrolysable tannins punigluconin, pedunculagin and Emblicanin A and Emblicanin B. [7]

3.6 USES -

Emblica well-known shows strong antioxidant activity. It is one of the most essential plants in the traditional Ayurvedic medical system in addition to in other traditional health systems for immunomodulatory, antiulcer, anti-inflammatory, hepatoprotective and anticancer actions. However, there is very restricted medical evidence to assist the use of emblica for any indication. [7]

4.1 HIBISCUS

4.2 Table no. 2 – Plant Description

Synonyms	<ol style="list-style-type: none"> 1. Rose mallow 2. Hardy Hibiscus 3. Rose shorn
Family	Malvaceae – Mallow family
Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Malvaceae
Genus	Hibiscus. L. Rosemallow



(2) FIGURES NO – 2 Hibiscus

4.3 BIOLOGICAL SOURCE – Dried flowers of hibiscus rosa Sinensis.

4.4 PLANT DESCRIPTION –

Hibiscus rosa-Sinensis is a bushy, evergreen shrub or small tree developing 2.5–5 m (8–16 ft) tall and 1.5–3 m (5–10 ft) wide, with glossy leaves and solitary, brilliant red flowers in summertime season and autumn. The 5-petaled flowers are 10 cm (4 in) in diameter, with distinguished orange-tipped red anthers.[7]

4.5 CHEMICAL CONSTITUENT –

Leaves and stems include β -sitosterol, stigmasterol, taraxeryl acetate and three cyclopropane compounds and their derivatives. Flowers include cyanidin diglucoside, flavonoids and vitamins, thiamine, riboflavin, niacin and ascorbic acid. Quercetin 3 diglucoside, 3,7-diglucoside, cyanidin-3,5- diglucoside and cyanidin-3-sophoroside-5glucoside were isolated from deep yellow flowers; all above compounds and kaempferol 3xylosylglucoside had been isolated from ivory white flowers. [7]

4.6 USE –

Hibiscus and Gunda are the most beneficial ingredients for hair. It is used for the growth of hair, its regrowth, and hair loss. Hibiscus carries amino acid, vitamin A, C, and Alpha hydroxy acid along with nutrients that are highly beneficial for hair and scalp. That gets healthy and minimizes the chances of dandruff from hair. [8]

5.1. CURRY LEAVES

5.2 Table no 3.-Plant Description

Synonyms	1 Murray koenigii 2 Bergera koenigii L. 3 Camunium koenigii (L) Kuntze
Family	Rutaceae
Kingdom	Plantae
Division	Tracheophyta vascular plant
Class	Magnoliopsida
Order	Sapindales
Genus	Murraya



(3)FIGURE NO – 3 Curry leaves

5.3 BIOLOGICAL SOURCE – Dried leaves of *Murraya koenigii*

5.4 PLANT DESCRIPTION-

Curry leaves are small in size and long, slender and oval narrowing to a point, averaging 2- 4 centimetres in length and 1-2 centimetres in width. The shiny, dark green leaves grow pinnately along a stem, and each branch can hold up to twenty, tightly clustered leaves. [9]

5.5 CHEMICAL CONSTITUENT –

Curry leaves are very rich in copper, minerals, calcium, phosphorus, fibre, carbohydrates, magnesium, and iron, which are important nutrients. Besides, Curry leaves often contain different kinds of vitamins and amino acids.[10]

5.6 USE –

The curry leaves contain antioxidant properties and iron that help strengthen the hair root and shafts while curbing hair loss.[11]

6.1 . HENNA –

6.2 Table no 4.-Plant Description

Synonyms	1 Lawsonia inermis 2 Alcanna Spinosa 3 Casearia multiflora spren
Family	Lythraceae
Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Myrtales
Genus	Lawsonia



(4) FIGURE No – 4 Henna

6.3 BIOLOGICAL SOURCE – Dried leaves of *Lawsonia inermis*.

6.4 PLANT DESCRIPTION –

Henna is a tall shrub or small tree, standing 1.8 to 7.6 m tall (6 to 25 ft). It is glabrous and multi-branched with spine-tipped branchlets. The leaves develop opposite every different on the stem. They are globous sub-sessile, elliptical and lanceolate (long and wider in the centre; common dimensions are 1.5-5.0 cm x 0.5-2 cm or 0.6-2 cm x 0.2-0.8 cm) acuminate and feature depressed veins at the dorsal floor Henna flowers have four sepals and a 2mm calyx tube with 3mm spread lobes. Its petals are obovate with white or red stamens located in pairs at the rim of the calyx tube. The ovary is four-celled, 5 mm long and erect. Henna fruits are small, brownish capsules, 4-8mm in diameter with 32-49 seeds per fruit and open irregularly into four splits. [7]

6.5 CHEMICAL CONSTITUENT –

The phytochemicals which are present in the henna are phenols, anthraquinones and glycosides. Lawsone is the lively constituent of the henna leaves. The different chemical constituents of henna are gallic acid, white resin, sugars, tannins and xanthenes. Lawsone is the primary colouring constituent of the henna and is acquired by the degradation of hennosides A, B and C. [7]

6.6 USE –

Henna leaves are used as a prophylactic agent in opposition to skin diseases by applying henna paste to the affected areas. Henna leaves have anti-fungal belongings and the henna paste can be

applied even on the nails or any affected part constantly for 15 days to cure the fungal infection. The paste of henna leaves can be applied for treating headaches and burning sensations of the feet. The henna leaves act towards tubercular bacteria and other bacteria and also in typhoid and haemorrhagia. Henna is used in the hair care products like rinses, conditioners and applications. [7]

7.1 BHAGYARAJ

7.2 Table no 5.-Plant Description

Synonyms	1 Eclipta prostrata 2. False dasiy 3 Eclipta alba
Family	Asteraceae
Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Asterales
Genus	Eclipta



(5) FIGURE NO – 5 Bhringraj

7.3 BIOLOGICAL SOURCE- The dried whole plant of *Eclipta prostrata*

7.4 PLANT DESCRIPTION -

Bhagyaraj is a creeping herb about 3 mt in height. It is an annual erect and branched herb often rooting at nodes. The herb has white colour flower with long stalk. Leaves are opposite, sessile and lance-shaped. Well developed roots of this plant are cylindrical and greyish. Floral heads are white in colour, solitary, winged narrowly and about 6 – 8 mm in diameter. The plant is moisture-loving and grows in a moist place throughout the world. [12]

7.5 CHEMICAL CONSTITUENT-

Bioactive steroidal alkaloids, glucoside, resin, alkaloids, nicotine, and flavonoids widely – lactone widely acid, epigenin and luteolin. . [13]

7.6 USE -

Bhringaraj is the primary herb for hair care and cirrhosis in Ayurveda. It is assumed to maintain and rejuvenate hair, teeth, bones, memory, sight, and hearing. It works to rejuvenate kidneys and liver. Like oil, it treats greying and balding, makes the hair darker, and promotes deep sleep. It additionally improves complexion. In Ayurveda, the root powder is used for treating hepatitis, enlarged spleen and skin disorders. Mixed with salt, it relieves the burning urine sensation. Mixed with a little oil and implemented to the head, the herb relieves headaches. Bhringaraj is likewise utilized in to prevent repeated miscarriage and abortion. It is also used to alleviate post-delivery uterine pain. The leaves of this herb are used to reduce uterine bleeding. The extract taken from its leaves is blended with honey and given to infants, for the expulsion of worms. Bhringaraj is also given to children in case of urinary tract infections. Fumigation with Bhringaraj is taken into consideration to result in relief in piles. Bhringaraj oil has anti-ageing properties, as it has a rejuvenating impact on the body. It is also given as a preferred tonic in cases of debility. [12]

8.1 ALMOND OIL –

8.2 PLANT DESCRIPTION –

	1. Prunus Dulcis 2. Mandorla dolce 3. Mingal sladkii
Family	Rosaceae
Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Rosales
Genus	Prune



(6)FIGURE NO – 6 Almonds oil

8.3 BIOLOGICAL SOURCE – Oil derived from the dried fruit of *Prunus dulcis*.

8.4 PLANT DESCRIPTION –

Almond trees are deciduous with a hardy dormancy. Typically growing 3 – 4.5metres (10-15 feet) tall, the trees are strikingly beautiful when in flower; they produce fragrant, five-petaled light pink to white flowers from late January to early April north of the Equator. [14]

8.5 CHEMICAL CONSTITUENT –

The major fatty acids in Taiyuan almond oil were found to be about 68 % oleic acid (C18:1), 25% linoleic acid (C18:2), 4.6 %- 4.8% palmitic acid (C16 : 0) and a little palmitoleic acid (C16:1), stearic acid (C18 : 0). A trace of arachidic acid (C20 : 0) was also found. [14]

8.6 USE –

Almond oil is used as a scalp treatment. Its antibacterial and fungicidal properties make it effective at balancing the yeast that causes dandruff. It easily soaks into the skin, so almond oil works well at hydrating the scalp and cleaning the hair follicle. It smooths frizz and heals damaged hair with almond oil. Apply a dime-sized amount or less to the end of hair before drying to hydrate and decrease frizz. Almond oil rich in vitamin E is used in the treatment of hair loss and strengthens the hair. [14]

9.1 COCONUT OIL –

9.2 Table no 9.-Plant Description

Synonyms	1. <i>Prunus Dulcis</i> 2. <i>Mandorla dolce</i> 3. <i>Mingie Sladkii</i>
Family	Areaceae
Kingdom	Plantae
Genus	<i>Cocos L</i>
Division	Magnoliophyta
Class	Lilipsida
Order	Arcade



(7) FIGURE NO – 7 Coconut oil

9.3 BIOLOGICAL SOURCE – Oil Derived from dried plants of *Cocos Nucifera*.

9.4 PLANT DESCRIPTION –

Cocos nucifera trees have a smooth, columnar, light grey-brown trunk, with an average diameter of 30-40 cm at breast height, and topped with a terminal crown of leaves. Tall alternatives may attain a height of 24-30 m; dwarf alternatives also exist. The trunk is narrow and barely swollen on the base, generally erect but maybe leaning or curved. Leaves pinnate, feather-shaped, 4-7m long and 1-1.5 m wide on the broadest part. Leaf stalks are 1-2 cm in length and are thornless. The inflorescence consists of female and male auxiliary flowers. Flowers small, light yellow, in clusters that emerge from canoe-shaped sheaths some of the leaves. Male flowers are small and more severe. Female flowers are fewer and on occasion completely absent; larger, spherical structures, about 25 mm in diameter. Fruit roughly ovoid, up to 5 cm long and 3 cm wide, composed of a thick, fibrous husk surrounding a particularly spherical nut with a hard, brittle, hairy shell. The nut is 2-2.5 cm in diameter and 3-4 cm long. Three sunken holes of softer tissue, known as ‘eyes’, are at one end of the nut. Inside the shell is a thin, white, fleshy layer called the ‘meat’. The interior of the nut is hollow but partly filled with a watery liquid is known as ‘coconut milk’. The meat is soft and jellylike while immature but will become firm with maturity. Coconut milk is considerable in unripe fruit but is progressively absorbed as ripening proceeds. The fruits are green at first, turning brownish as they mature; yellow varieties go from yellow to brown. [7]

9.5 CHEMICAL CONSTITUENT –

The chemical constituents of *Cocos Nucifera* have some biological effects such as anthelmintic, anti-inflammatory, antinociceptive, antioxidant, antifungal, antimicrobial and antitumor activities. [7]

9.6 USE

The oil and milk derived from it are generally used in cooking and frying. Coconut oil is also extensively used in soaps and cosmetics. The husk and leaves can be used as materials to make several products for furnishing and decorating. Coconuts have been used in traditional remedies around the world to treat several ailments, starting from sore throat, colds, and earaches to tuberculosis, tumours and ulcers. Recent medicinal research has observed that coconut may have antibacterial, antifungal, anthelmintic and antiviral properties, among other health benefits. [7]

10 MATERIAL AND METHODS

10.1 COLLECTIONS OF POLYHERBAL HAIR OIL

Various plant materials were collected from the preparation of herbal hair oil use Amla,

Hibiscus, curry leaves, henna, bhrngraj, almond oil, coconut oil from the local market

Ahmednagar Maharashtra India was properly authenticated. [16]

10.2 Formulation of polyherbal hair oil-

The dried ingredients are used to produce the herbal hair oil. Accurately weigh all the fresh herbs such as Amla fruit, Hibiscus flower, curry leaves, henna flower bhringraj whole plant keeping them in sunlight convert dry material into powder form by using mesh number 60 smoke or the ingredients in the almond oil overnight herbal hair oil on the low flame for 15 minutes then the late herbal oil could sink it through the Muslim cloth added coconut oil to make volume store the oil in Amber colour bottle.

10.3 Formulation of polyherbal hair oil-

Sr. No	Ingredients	Quality of polyherbal
1)	Amla (<i>Embllica Officinalis</i>)	4%
2)	Hibiscus (<i>Hibiscus rosa Sinensis</i>)	3%
3)	Curry leaves (<i>Murraya koenigiri</i>)	2%
4)	Henna (<i>Lawsonia inermis</i>)	2%
5)	Bhringraj (<i>Eclipta alba</i>)	4%
6)	Almond oil (<i>Prunus amygdala</i>)	60%
7)	Coconut oil (<i>Cocos Nucifera</i>)	25 %

10.4 Formulation Of Amla Dabur oil

Sr. No	Ingredients	Quality of Amla Dabur oil
1	Minerals oil	49.8%
2	Vegetables oil including Amla Extract	47.3%
3	Sugandhit dravya	

11. EVALUATION OF POLYHERBAL HAIR OIL

Physical and biological evaluations of the formulation poly herbal were performed

11.1 Organoleptic property-

Colour, physical, state and odour were manually determined for various organoleptic properties.[17]

11.2 PH -

A PH meter was used to examine the bear shop for the herbal oil. [17]

11.3 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 valua the viscosity. [17]

11.4 Refractive index-

Using the refractometer it was determined. [17]

11.5 Specific gravity-

.The specific gravity bottle was rinsed with distilled water, and dried for 15minutes in a hot air oven, cooled, capped measured and labelled as (a). Now the sample specific gravity bottle was filled with the sample, capped and weighed once more(b). The sample weight per mm was estimated by calculating the weight for the sample weight per mm (b-a). [17]

11.6 Acid value -

• Preparations of 0.1 molar solution on-

weight 0.56 g KOH paletts and dissolved in 100 ml distilled water while being constantly stirred. The prepared 0.1 molar KOH solution was poured into the burette.

• preparation of sample –

10 ml oil were taken and dissolved in 50 ml of 1.1 ethanol and ether mixture that was vigorously shaking. Then 1ml phenolphthalein solution was added, and it was titrated with a 0.1 molar KOH solution. [17]

11.7 Saponification value –

In an a250ml conical flask 1 ml of oil was correctly measured and 10ml ethanol:Ether mix (2:1) was added 25 ml of 0.5 N and alcoholic KOH was mixed to this flask the flask was held for 30 minutes and then cooled using the phenolphthalein indicator 0.5 N HCL was used to write the cold solution. [17]

12 Comparative study of polyherbal and Amla Dabur oil

Sr. No	Property	Polyherbal oil	Amla Dabur oil
1)	Oil Ingredients	1)Amla 2) Hibiscus 3)Curry leaves 4)Henna 5) Bhringraj 7) Almond oil 6)Coconut oil	1)Minerals oil 2)Vegetables oil (Sesame oil, Canola oil, peanut oil, Cotton Seed, Palmolein oil) 3)Amla extract 4)Sugandhit dravya
2)	Preservative	Oil suspension	Butylated Hydroxy Toluene
3)	Material	No chemicals use	No chemicals use
4)	Antioxidant	No Antioxidant	TBHQ, C. I-12740 C. I61565 C. I-26100
5)	Nature	Organic	Organic
6)	Hair growth	4-5	3-5

7)	Storage condition	Nil	Nil
8)	Clamind%	100% Ayurvedic	Vegetable oil including Amla Extract =58 Minerals oil=40

13 Conclusion

Polyherbal hair oil is one of the most well known hair remedies. Indian is part of a growing range of medicinal herbs with a variety of preventing and curative properties. Antidandruff, hair thickening and herbal extract have been shown to have anti-hair fall properties and constituents used in the formulation of Polyherbal hair oil, which when used to them, had a stimulating impact in promoting good, lustrous hair growth. It has been established that the formulation is safe for human use. Formulated herbal hair oil has optimum standards and further standardization and biological screening establish the efficacy of formulated herbal hair oil.

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