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Herbal cosmetics: An overview

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Abstract

Mother Nature has given human, the most loved formation of God, with all that he expected to live on this planet: air to inhale, water to extinguish thirst, grains to appetite, flame to light etc. Human body is the microcosm of the whole universe and the response to every human issue lies in keeping up congruity with the enormous musicality. Nature has offered the way to keep up that parity. Herbs! Yes herbs are one such means. An herb is a plant or plant extract, including leaves, bark, berries, roots, gums, seeds, stems and flowers which are bestowed with nourishing and healing elements. Cosmetics alone are not sufficient to take care of skin and others body parts, it requires association of active ingredients to check the damage and ageing of the skin. Herbal cosmetics have gained much popularity among the population. Herbal cosmetics products claimed to have efficacy and intrinsic acceptability due to routine use in daily life and avoid the side effects which are commonly seen in synthetic products. The current article deals with the literature of herbal cosmetic related to present status, advantages, Indian extract, treatment of ailments and properties related to herbal cosmetic.

Keywords: Natural cosmetics, Ayurveda, Cosmetic surgeries, Herbal conditioner

1. Introduction

Herbal cosmetic also known as “natural cosmetics”. The demand of herbal medicines is increasing rapidly due to their lack of side effects^[1]. With the beginning of the civilization; humankind had the attractive plunge towards impressing others with their looks. At the time, there were no fancy fairness creams or any cosmetic surgeries. To begin with just thing they had was the information of nature, aggregated in the Ayurveda. With the art of Ayurveda, a few herbs and floras were used to make Ayurvedic cosmetics that truly worked. Ayurvedic cosmetics not only beautified the skin but acted as the shield against any kind of external affects for the body. Ayurvedic cosmetics also known as the herbal cosmetics have the same admirable resources in the present day period too. Many traditional medicines in use are derived from medicinal plants, minerals and organic matter^[2]. There is an extensive variety of the herbal cosmetics that are produced and commonly used for daily purposes. Herbal cosmetics like herbal conditioner, herbal soaps, herbal face wash, herbal shampoo, and many more are exceptionally acclaimed by the masses. The best thing of the herbal cosmetics is that it is purely made by the herbs and shrubs. The natural content in the herbs does not have any reactions on the human body; rather enhance the body with supplements and other helpful minerals. Herbal cosmetics are comprised of floras like saffron (kesar), ashwagandha, sandal (chandan) and numerous increasingly that is expanded with healthy nutrients and all the various essential components. It is evaluated that roughly 400 flavors are utilized far and wide, although only about 70 spices are officially recognized. Herbs have variety of function such as food flavorings, cosmetics and medicine in the forms of tea, tablet, capsule, tincture, cream, syrup, and liquid. The worldwide herbal industry is currently evaluated to be more than US\$10 billion dollars and expanding at a rate of three to four percent annually for reasons of increased consumption in processed foods and demand for ethnic foods, natural fragrances, and innovation in beverage

products. The biggest markets, regarding of manufacturing and consumption, are in Europe, followed by Asia.

2. Present Status

Herbalists today, believe to help people build their good health with the help of natural sources. Herbs are thought to be food rather than medicine because they're complete, all-natural and pure, as nature intended. At the point when herbs are taken, the body begins to get purified, it gets decontaminating itself. Unlike chemically synthesized, highly concentrated drugs that may produce many side effects, herbs can effectively realign the body's defenses. Herbs don't create moment cures, yet rather offer an approach to put the body in legitimate tune with nature. From a huge number of years, people have utilized herbs. Herbs have been used in the following ways -, as perfumes, as disinfectants, in cooking for flavoring foods, to protect us against germs, as medicines to heal when we are sick³.

3. Advantages of Herbal Cosmetics

Herbs are important for their disease prevention and health promotion properties having following advantages which are described below:

3.1 Natural products

Herbal cosmetics are natural and free from all the harmful synthetic chemicals which generally may turn out to be lethal to the skin.

3.2 Safe to use

Natural cosmetics are protected to utilize. They are hypo-allergenic and tested and proven by dermatologists to be safe to use anytime, anywhere. Since they are made of natural ingredients, people don't have to worry about getting skin rashes or experience skin itchiness.

3.3 Compatible with all skin types

No matter if you are dark or fair; you will find natural cosmetics like foundation, eye shadow, and lipstick which are appropriate irrespective of your skin tone. Women with oily or sensitive skin can also use them and never have to worry about degrading their skin condition.

3.4 Wide selection to choose from

These products are more affordable than synthetic ones. They are offered at economical prices and are sold for a cheap price during sales. An estimate of WHO demonstrates about 80% of world population depends on natural products for their health care, because of side effects inflicted and rising cost of modern medicine.

3.5 No side effects

The synthetic beauty products can irritate your skin, and cause pimples. They might block your pores and make your skin dry or oily. With natural cosmetics, one need not worry about these. The natural ingredients used assure no side effects; one can apply them anytime, anywhere.

3.6 Cosmeceutical

Cosmeceuticals is fastest growing segment of the beauty industry. Cosmeceuticals are cosmetic-pharmaceutical products intended to improve the health and beauty of the skin by providing a specific result, ranging from acne-control and anti-wrinkle effects, to sun protection.

4. Indian Extracts for Herbal Cosmetics [3]

Herbs assume a significant role, especially in present day times, when the harming effects of food processing and over-medication have accepted alarming proportions. They are currently being progressively cosmetics, foods and teas, as well as alternative medicines. The developing enthusiasm for herbs is a part of the development towards change in the ways of life. This development depends on the conviction that the plants have a tremendous potential for their utilization as a remedial medication.

- i) **Amla (*Embilica officinalis*):** Amla grows throughout India and the name given to the fruit of a small leafy tree (*Embilica Officinalis*). This fruit have a high content of vitamin C which is extracted from its seeds it is used as a treatment for hair and scalp problem.
- ii) **Brahmi (*Bacopa monnieri*):** It can be used as a face pack to improve facial complexion, as a hair application to make hair shiny, also removes dandruff and lice in hair.
- iii) **Shikaka (*Acasia cancina*):** It is a small shrub-like tree, which grows in the warm, dry plains of central India. It helps in removing dandruff and lice & very effective in removing oil and dirt from hair.
- iv) **Neem (*Azadirachata indica*):** "Sarva Roga Nivarini - the curer of all ailments" Neem's role as a wonder drug is stressed as far back as 4500 years ago. Some of its health benefits include immunity booster, effective in skin infection, blood purifier etc.
- v) **Reetha Powder (Soap nut):** It is used in India as a natural hair and body cleanser.
- vi) **Tulsi (*Ocimum sanctum*):** Holy basil, called Tulsi in India, is ubiquitous in Hindu tradition. Its role has a healing herb, antiviral and also in treating many disorder.
- vii) **Ghratkumar (*Aloe vera*):** It is used for pain relief and

healing of 'hemorrhoids, applied externally and internally it is also used for sunburn, scratch and a cleansing purge for the body or skin. It is an aid to growing new tissue and alleviating the advance of skin cancer caused by the sun.

- viii) **Multani Mitts (Fullers Earth):** It is Mother Nature's own baby powder. It is useful in removing pimple marks, treating sunburn; helps unclog pores, to cleanse the skin of flakes and dirt.

5. Applications of Herbal Products in Cosmetics [4,5]

Herbs play an important role in the field of cosmetic

- i) **Herbal Skin Care Products:** Lavender body powder and body soap, Silk Soaps and Care Creams.
- ii) **Herbal Hair Care Cosmetics:** Herbal hair care cosmetics have a several ingredient e.g Shikakai (*Acacia concinna*), Henna (*Lawsonia inermis*), Guar Gum (*Cyamopsis tetragonolobus*) Amla (*Embilica officinalis*), Brahmi (*Bacopa monnieri*).
- iii) **Herbal Lip Care Cosmetics:** Herbal Lip plumper, Herbal Lipsticks, Herbal Lip Balm and Herbal Lip Gloss.
- iv) **Herbal Eye Care Cosmetics:** Eye Shadow, Eye Gloss, Eye Make Up, Liquid Eye Liners
- v) **Herbal Creams, Lotions, Gel: Creams:** Rich Face and Hand Cream, Aloe Moisturizing Hand
- vi) **Herbal Oils:** Herbal oils are effective for baldness, falling of hair, thinning of hair, in treating irritation & Itching of scalp
- vii) **Herbal Perfumes & fragrances:** Citrus Fragrance: The light, fresh character of citrus notes (bergamot, orange, lemon, petitgrain, mandarin etc.) is often combined with more feminine scents (flowers, fruits and chypre).

6. Marketed products of Herbal Cosmetics

Various marketed preparation of herbal products are in market which are given in the table below.

Table 1: Herbal skin care products

Products	Brand Name
Face pack	Amazine Herbal Scars Face Pack
Massage gel	Amazine herbal fruit massage gel
Gel	Dr. Jain's forest cucumber
Face wash	Combi neem Face wash
Cream	Vicco turmeric cream
Face scrub	Aloe indica face scrub
Cold cream	Gayatri papaya & strawberry cold cream
Face powder	Agarwal tulsi face powder

Table 2: Herbal hair care products

Products	Brand Name
Shampoo	Agarwal honey aloe vera shampoo
Anti-dandruff shampoo	Himalaya antidandruff shampoo
Hair gel	Aroma sikakai& tulsi hair gel
Hair conditioner	Vedico aloevare hair conditioner
Hair colour	Crown heena hair colours
Hair oil	Prakriti sesam gold hair oil

Table 3: Herbal Lip Care

Products	Brand name
Lip gloss	Komet kozmetik lip gloss
Lip plumper	Ruhi lip plumper
Lipstick	Kamey lipstick
Lip balm	Pallido lip balm

Table 4: Herbal Eye care Products

Eye shadow	Matrix eye shadow
Eye liners	Tonnie eye liners
Mascaras	Uniclolor mascararas
Eye pencils	Organic rose eye pencils
Perfumes	Devy perfumes
Deodorants	Always deodorants
Soaps	Carmino herbal soaps
Foundations	Carmine foundations

7. Herbal medicines for treatment of various ailments:

7.1 Dry skin treatment

a) Coconut oil: Coconut oil comes from the fruit or seed of the coconut palm tree *Cocos nucifera*, family Arecaceae. Extra virgin coconut oil is excellent as a skin moisturizer. When used

for fourteen hours coconut oil helped prevent protein loss from the wet combing of hair.

b) Sunflower oil: It is the non-volatile oil expressed from sunflower seeds obtained from *Helianthus annuus*, family Asteraceae. In cosmetics, it has smoothing properties and is considered noncomedogenic.

c) Aloe Vera: A native of southern Africa, the aloe vera plant has fleshy spiny-toothed leaves and red or yellow flowers. It is an ingredient in many cosmetics because it heals moisturizes, and softens skin. Simply cut one of the aloe vera leaves to easily extract the soothing gel. Aloe vera contains amino acids like leucine, isoleucine, saponin glycosides that provide cleansing action, vitamins A,C,E,B, choline, B12 and folic acid and provide antioxidant activity [7].



Coconut oil



Sunflower oil



Aloe oil

Fig 1: Herbal medicines for dry skin

7.2 Anti-aging treatment

a) Carrot: - It is obtained from the plant *Daucus carota* belonging to family Apiaceae. Carrot seed oil is indicated for anti-aging, revitalizing and rejuvenating. As it promotes the formation of new cells and helps in reducing wrinkles. It acts as Natural toner and rejuvenator for the skin.

delivered to the brain and eyes (to protect against degenerative eye diseases like macular degeneration), as important as we age.

b) Ginkgo: - Ginkgo comes from the ginkgo tree, *Ginkgo biloba* belongs to family Ginkgoaceae. It is best known, as a circulatory tonic, in particular for strengthening the tiny little capillaries to all the organs, but especially to the brain. The capillaries become more flexible and as a result more oxygen is

c) Rhodiola rosea: It is commonly known as golden root, roseroot, Aaron's rod, arctic root, king's crown, *lignum rhodium*, orpin rose. Traditional folk medicine used *R. rosea* to increase physical endurance, work productivity, resistance to high altitude sickness, and to treat fatigue, depression, anemia, impotence, gastrointestinal ailments, infections, and nervous system disorders [8]. *R. rosea* is rich in phenolic compounds, known to have strong antioxidant properties.



Carrot



Ginkgo



Rhodiola rosea

Fig 2: Herbal medicines for anti-aging treatment

7.3 Dandruff treatment

a) Henna: - Henna comes from the plant, *Lawsonia inermis* family Lythraceae, which contain a dye molecule called Lawsonone, which when processed becomes Henna powder. Henna has a natural affinity with the proteins in our hair, making it able to “stain” the colour onto the hair shaft.

b) Neem: - The herb, *Azadirachta indica*, family Meliaceae has been found to have the properties of a Blood purifier, beauty enhancer. The common treatment for the dandruff is Neem as it produces antifungal, antibacterial, pain-relieving, and anti- compounds that would treat dandruff [9].



Fig 3: Herbal medicines for dandruff treatment

7.4 Skin protection

a) Green Tea: - Green tea is tea made solely with the leaves of *Camellia sinensis* belonging to family Theaceae. It is a premiere skin protectant. It protects against direct damage to the cell and moderates inflammation. The catechins in green tea are some 20 times stronger in their antioxidant powers than even vitamin E.

b) Calendula:-Calendula in suspension or in tincture is used topically to treat acne, reducing inflammation, controlling

bleeding and soothing irritated tissue [10]. There is "limited evidence" that calendula cream or ointment is effective in treating radiation dermatitis [11].

c) Turmeric: - Turmeric is used in many celebrations of Hindus. Especially in Hindu wedding brides would rub with turmeric on their bodies for glowing look. New born babies also rubbed with turmeric on their forehead for good luck. Traditionally women rub turmeric on their cheeks to produce a natural golden glow.



Fig 3: Herbal medicines for skin protection

7.5 Hair care

Various oils derived from vegetable and mineral sources, and are used in cosmetics. Examples of vegetables oils are almond oil, arachis oil, castor oil, olive oil, and coconut oil. Examples of mineral oils are Light and Heavy paraffin.

a) Amla: - Amla is obtained from the plant *Emblica Officinalis*, Family Euphorbiaceae. Amla is rich in vitamin C, tannins and minerals such as phosphorus, iron and calcium which provides nutrition to hair and also causes darkening of hair [12]. Hibiscus consists of calcium, phosphorus, iron, vitamin B1, riboflavin, niacin and vitamin C, used to stimulate thicker hair growth and prevents premature graying of hair.

b) Coconut oil: - this oil obtained from the dried solid part of the endospasm of the coconut- *Cocos nucifera*, family Palmae. It is white or pearl- white unctuous mass in winter and colourless in summer.

c) Almond oil: - The almond oil is obtained from *Prunus dulcis*. It proves to be very nourishing, and softens and strengthens the hair. The almond oil also proves to be a very good cleansing agent.

d) Arachis Oil: - This is also a fixed oil obtained from the seeds of the *Arachis hypogea* belonging to the family Leguminosae. The oil is pale yellow in colour, with a faint

nutty odour. It is used in the preparation of hair oils and 'Brilliantines'.

e) Castor oil: - This oil is obtained from the seeds of *Ricinus communis* belonging to the family, Euphorbiaceae. It is used as an emollient, in the preparation of lipstick, hair oils, creams and lotions.

f) Eucalyptus Oil: - Eucalyptus oil is the generic name for distilled oil from the leaf of *Eucalyptus*, a genus of the Plant family Myrtaceae. Eucalyptus oil can help to get rid of dandruff, which in turn can help to promote healthy growth of hair.

g) Rose oil: - The well-known essential oil is probably rose oil, produced from the petals of *Rosa damascena* and *Rosa centifolia*, family Rosaceae. Steam-distilled rose oil is known as "rose otto" while the solvent extracted product is known as "rose absolute". It is used more commonly in perfumery. The key flavor compounds that contribute to the distinctive scent of rose oil are beta-damascenone, beta-damascone, beta-ionone, and oxide.

h) Citronella oil: - It is one of the essential oils obtained from the leaves and stems of different species of *Cymbopogon* family Cardiopteridaceae. The crisp, rich citrus or lemon like aroma of this oil drives away body odour and is used

deodorants and body sprays, although in very small quantities, since it heavy doses it may give skin irritations. It can also be mixed with the bathing water to have a refreshing, body odour ending bath.

i) Olive oil: This oil is a fixed oil extracted from the fruits of *olea europaea*, family oleaceae. The major constituents are triolein, tripalmitin, trilinolein, tristearate, monostearate, triarachidin, squalene, β -sitosterol and tocopherol. It is used as skin and hair conditioner in cosmetics like lotions, shampoos etc. It is a potent fatty acid penetration enhancer.

j) Sunflower oil: It is the non-volatile oil extracted from sunflower seeds obtained from *Helianthus annuus*, family Asteraceae. Sunflower oil contains lecithin, tocopherols, carotenoids and waxes. It has smoothing properties and is considered non-comedogenic [14]. A simple yet cost-effective oil, well tried and tested for generations in a wide variety of emulsions formulated for face and body Products [15].

k) Light liquid paraffin: - It consists of a mixture of hydrocarbons in the form of an oily liquid which has no colour or odour. It is used in the manufacture of bath oils, hair oils, lotions and creams, due to its better spreadibility.

l) Heavy liquid paraffin: - It is composed of a mixture of hydrocarbons in the form of a colourless and odourless oily liquid. Due to its soothing effect on the skin, it is used in the creams, lotions, and in hair oil.

m) Waxes: - They are the esters resulting from the condensation of high molecular straight chain fatty acids with high molecular straight chain monohydric alcohol of the methanol series. They are used in cosmetics as a base, along with oils and fats. Examples: lipstick.

n) Beeswax: - It is a purified wax separated from the honeycomb of bees, *Apis mellifera* which belong to the family, Apidae. Beeswax is composed of 70% ester myricyl palmitate. Beeswax helps in the incorporation of water to form an emulsion.

7.6 Herbal as an antioxidant

Antioxidants either synthetic or natural can be effective in preventing free radical formation by scavenging them or promoting their decomposition and suppressing such disorders [15]. Currently, there is a growing interest toward natural antioxidants of herbal resources [16]. Free radical formation is controlled naturally by various beneficial compounds known as antioxidants. In addition to fruits and vegetables, herbs of no particular nutritional value can also constitute an important source of antioxidants [17]. The leaves from black and green tea (*Camellia sinensis*), constitute an important source of potentially health-protecting antioxidants and world-wide represent the most popular form of daily herb consumption.

8. Various example showing antioxidant activities are [18, 19, 20] Examples of drug showing antioxidant activity are

i) Tamarind:-*Tamarindus indica*, family Fabaceae, is widely growth in tropical regions Tamarind seed has activity of radical scavenging, anti-microbial activities and a lipid peroxidation reducing. Its antioxidant activity is appropriate for anti-wrinkle cosmetics.

ii) Vitamin C:-It prevents free radical damage due to its property of donating free radicals. It is beneficial in boosting immune system. The main source of Vitamin-C is carrots, peaches, sweet potatoes, oranges, broccolis, etc.

iii) Vitamin E: - Both plants and animals serve as a source of vitamin E. It has been found beneficial against certain types of cancer & cardiac problems. It is known as “*scavenger of free radicals*” Vitamin E is mainly present in almonds, nuts, whole cereal grains, vegetable oils etc.

iv) Pomegranate: - The pomegranate plant (*Punica granatum*) extract has antioxidant and antiviral properties and is said to enhance the effectiveness of topical sunscreens. Pomegranate seed oil has been demonstrated to exhibit chemopreventive activity against skin cancer. In addition, pomegranate peel fractions may foster dermal regeneration and pomegranate seed oil fractions may facilitate epidermal regeneration.

v) Resveratrol:- This polyphenolic phytoalexin compound, present in the skin and seeds of grapes, berries, peanuts, and other foods, is considered a potent antioxidant, anti-inflammatory, and anti-proliferative agent. Resveratrol has been intended to prevent skin cancer and other conditions thought to be generated by the sun.

vi) Ferulic Acid:- Ferulic acid (4-hydroxy-3-methoxycinnamic acid) is considered a potent antioxidant known to provide photoprotection to skin when it is incorporated into sunscreens, cosmetic lotions and other skin products. Further, it is believed to act synergistically with vitamins C and E and beta-carotene

vii) Liquorice: - *Glycyrrhiza glabra* (*G. glabra*) extract has been used to treat skin irritation dermatitis, eczema, pruritus, and cysts. It has a chemopreventive action because of glycyrrhizin.

9. Conclusion

Herbal cosmetics are prepared, using cosmetic ingredients to form the base in which one or more herbal ingredients are used to treat different skin ailments and for the beautification. The chemical formulation of all these cosmetic products includes addition of various natural additives like waxes, oils natural color, natural fragrances and parts of plants like leaves, etc. The Cosmeceuticals are agents that lie somewhere between pure cosmetics (lipstick and rouge) and pure drug (antibiotics, corticosteroids) methods. The cosmetic products are the best option to reduce skin problems such as hyper pigmentation, skin wrinkling, skin aging and rough skin texture etc. The demand of herbal cosmetic is rapidly expanding. The advantages of herbal cosmetics are lower cost, side effects free, environmental friendly, safe to use etc. Also has a great future ahead as compared to the synthetic cosmetics. Proper regulation of these herbs and standardization will lead to tremendous and significant growth in herbal cosmetics field.

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