



ISSN: 2250 – 2688

CODEN: CRPSBZ (USA)



Received: 15/06/2019

Revised: 15/07/2019

Accepted: 19/07/2019

Published: 08/10/2019

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DOI: 10.24092/CRPS.2019.090301

Website: www.crpsonline.com

Quick Response Code:



A Review on Role of Various Medicinal Plants in Cosmetics and Cure Health

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ABSTRACT

According to W.H.O, about 80% of the world population rely mainly on herbal remedies. Traditional use of herbs for cosmetic purposes mainly based on perfuming and skin care in the form of infusions, poultices etc. It is reported that herbal sources are mostly rich with vitamins, antioxidants, oils (essential) hydrocolloids, proteins, terpenoids and other bioactive compounds which are active in the scope of cosmetics such as anti-aging, anti-oxidant, anti-septic, anti-inflammatory emollient effect etc. The natural content in the herbs does not have any side effects on the human body as compared to synthetic product. Herbal extracts are processed for curing several remedies and serve other health prospective. Cosmetics alone are not sufficient to take care of skin and other body parts, it requires association of active constituents to check the damage and ageing of the skin. Herbal formulations are useful as therapeutic and cosmetic applications for the treatment of various skin disorders and also for beautifying and attractiveness of skin, hair, lips, face, eyes etc.

Keywords: Herbs, herbal cosmetics, herbal formulations, active constituents.

1. INTRODUCTION

Cosmeceuticals was first introduced by Raymond Reed founding member of US Society of Cosmetics Chemist in 1961. He actually used the word to brief the active and science based cosmetics. The word cosmetic was derived from the Greek word “kosm tikos” meaning having the power, arrange, skill in adornment.

Herbal cosmetics may be defined as the products which are formulated by or using plants and/or herbal components which are combination of many natural substances or compounds. In other words cosmetics are the preparations which are used to alter the appearance or incense of human body.¹

Herbal cosmetics in the world market are growing and are ineluctable gift of nature. The demand of herbal cosmetics is increasing rapidly day by day due to their lack of side effects. Cosmeceuticals have therapeutic value which affects the biological functioning of skin depending upon the type of active ingredients they contain. Cosmetic products are those products which are used not only for beauty purpose but also for skin ailments.²

According to W.H.O, about 80% of the world population rely mainly on herbal remedies.

Traditional use of herbs for cosmetic purposes is mainly based on perfuming and skin care in the form of infusions, poultices and etc. It is reported that herbal sources are mostly rich with vitamins (*Daucus carota*, Citrus fruit), antioxidants (*Curcuma longa*, *Aloe barbadensis*, *Santalum album*), oils (essential, volatile,), hydrocolloids (*Cyamopsis tetragonoloba*, *Parkia*, *Carica papaya*), proteins (*Citrus sinensis*, *Psidium guajava*, *Asparagus officinalis*, *Lens culinaris*) terpenoids (*Mentha piperita*, *Cinnamomum verum*, *Eucalyptus globulus*) and other bioactive compounds which are active in the scope of cosmetics such as anti-aging (*Curcuma longa*, *Camellia sinensis*, *Withania somnifera*), anti-septic (*Azadirachta indica*, *Calendula officinalis*, *Syzygium aromaticum*, *Echinacea purpurea*) anti-inflammatory (*Salix alba*, *Rosmarinus officinalis*, *Zingiber officinale*) and emollient effect (*Aloe barbadensis*, *Stellaria media*, Shark liver oil, *Theobroma cacao*).³

Herbs can be used for cosmetics in various forms such as part of herb such as *Azadirachta indica* (Entire tree), total extract of the herb - *Curcuma longa* (Root and Rhizome), extract of selective parts or specific compound purified from extracts or may be in the form of volatile oils (clove oil, Garlic oil), aromatic waters (Rose water), aqueous extracts (*Tinospora cordifolia*), tinctures (bitter orange peel), resins(*Curcuma longa*, *Zingiber officinale*), gums (*Cyamopsis tetragonoloba*), waxes(*Cera alba*), mucilages (*Plantago ovata*), carbohydrates (Honey, *Oryza sativa*) or purified herb molecules.⁴

Herbal composition of cosmetics that contain one or more herbal ingredients present varying activities such as antioxidant, anti-inflammatory, anti-aging, anti-septic, anti-tyrosinase activity and antimicrobial activity. The important property of the herbal cosmetics is that it is purely made by the herbs or their active constituents.³

It is reported that the natural content in the herbs or shrubs does not cause any unwanted reactions on the human body; rather enhance the body with supplements and other helpful minerals(Fuller's earth).

Cosmetics alone are not sufficient to take care of skin and other body parts, it requires association of active constituents to check the damage and ageing of the skin. Herbs are also used in the following ways- such as perfumes, as disinfectants, in cooking for flavouring foods (vanilla), to protect us against germs, as medicines to heal

when we are sick A range of essential oils have been found to have various degrees of antimicrobial activity and are believed to have antiviral, nematocidal, antifungal, insecticidal, and antioxidant properties. Aromatherapy applications include massage, topical applications, and inhalation.⁵

Herbal cosmetics are generally developed mainly for various purposes such as moisturizing dry skin, anti-aging effect, reducing wrinkles, skin whitening, and removal of dark spots, controlling oil secretion (oily skin), anti-dandruff effect, skin protection, hair care and anti-oxidative antipollution effects.⁴

2. PRESENT STATUS

Today's Herbal cosmetics have gained much popularity among the population because herbs are considered as food rather than medicine because they are all-natural & pure and complete, as nature intended. Herbs do not produce instant cures, but rather offers a way to put the body in proper tune with nature. People in rural areas and hilly region choose the natural remedies like plants, plant extracts for cosmetics purposes like Neem, Orange and China rose.

3. HERBAL FORMULATIONS ARE MORE BENEFICIAL THAN SYNTHETIC WHY?

Herbs and their preparations have been widely used traditionally, for the thousands of years in developing and developed countries owing to their natural origin and due to lack of side effects of herbal drugs.⁶

Now a day, Herbalists believe to help people build their good health with the help of natural resources. Mostly herbs are used as food rather than medicine because they're, all-natural and pure, as nature intended.⁷

The natural content in the herbs may not have any side effects on the human body as compared to synthetic product. Herbals extracts are processed for curing several remedies and serve other health prospective.⁸

Herbal treatment is a holistic treatment, integrating emotional, mental and spiritual levels. Naturopathic considered such as Life style, emotional, mental and spiritual. The herbs do not only for "drug" actions or side effects. Even though medicinal plants are used and assumed to be safe, however, they can potentially be toxic. It is reported that poisoning from medicinal plants is due to misidentification of the plants in the form, in which

they are sold, or incorrectly preparation and administration by inadequately trained personnel.

It is reported that Synthetic drugs show symptoms caused by specific diseases as understood by scientific pathology, however, a herbal medicine usually direct towards aiding the body's own healing process. Herbal medicines perform gently, "suppor" the systems and processes that have become deficient or attempt to help remove excesses that have become preponderant. Symptom relief is only a section of medicinal plants therapeutic strategies. For example, steroid anti-inflammatory drugs are used to treat arthritic, which have widespread disturbing adverse effects. The use of herbs to these conditions causes moistening of dry synovia, stimulation of circulation in the affected regions, facilitation of elimination via kidneys and hepatic/biliary routes, dietary modification of metabolism, etc.

4. VARIOUS HERBS USED AS MEDICINE IN COSMETICS

4.1 Antiseptic

4.1.1 Turmeric (*Curcuma longa*)

Turmeric is an important component of traditional Indian Ayurvedic medicine. Main active component of turmeric is curcumin. It is reported that turmeric has antibacterial, antiviral, antifungal, antioxidant, and anticancer activities and also has a potential to reduce the risk of various malignant disease, arthritis, Alzheimer's disease, and other chronic illness including rheumatoid arthritis.

4.1.2 Neem (*Azadirachta indica*)

Neem has proved effective against certain fungi that infect the human body. Such fungi are an increasing problem and have been difficult to control by synthetic fungicides. Neem contains Quercetin (a polyphenolic flavonoid) that has antibacterial and antifungal properties. Neem bark contains anti-inflammatory polysaccharide consisting of glucose, arabinose and fructose at a molar ratio 1:1:1 with molecular weight of 8,400.

4.2 Anti-oxidant

4.2.1 Carrot (*Dascus carota*)

It is an excellent source of vitamin A, B1, B2, C, E, thiamine, folic acid and riboflavin but lack in protein and fat. It is rich in beta carotene, ascorbic acid, tocopherol and classified as vitaminized food.

4.2.2 Aloe vera (*Aloe barbadensis*)

4.3 Anti inflammatory

4.3.1 Calendula (*Calendula officinalis*)

This is probably the queen of anti-inflammatory plants. It is applied in skin and hair care products as well as in baby care products. Its anti-inflammatory properties are related to triterpene flavonoids and saponins.

Calendula extract should protect the skin against UV-B oxidative stress⁴. Anti-tumore-promoting and cytotoxic activities are other properties related to this wonderful flower.

4.3.2 Yarrow (*Achillea millefolium*)

Yarrow's amazing anti-inflammatory and anti-puritic properties are related to its chamazulene content. Centaureidin, a flavonoid glucoside derived from yarrow has proved to have a positive effect on skin complexion and regulation of skin pigmentation. Because of its astringent properties, yarrow is an excellent additive for acne skin.

4.4 Anti-aging

4.4.1 Kelor leaf (*Moringa oleifera*)

Kelor leaves contain vitamin C seven times greater than oranges, vitamin A is ten times higher than carrots, calcium is seventeen times larger than milk, protein is nine timesmore than yogurt and potassium is fifteen times greater than bananas. It is also contains ascorbic acid, β -carotene, tocopherol, flavonoids, phenolics, carotenoids, hydroxylamine acid derivatives, so that kelor leaves can be used as a natural antioxidant source. Hence, it can be used as anti-aging agent in cosmetics preparation

4.5 Skin care & colouring agent

4.5.1 Saffron (*Crocus sativus*)

Saffron may be used in the treatment of skin cancer, which is a natural product. Main active constituents of saffron are crocin which is responsible for the color.⁹

4.5.2 Beetroot (*Beta vulgaris*)

Beet for Skin Mixture of Beetroot juice with clay and husk like multani mitti and wheat husk is used to keep the skin fair and flawless. The color of red beet root is due to red betacyanin and yellow betaxanthin pigments that are placed in betalain or betanins group of compounds.

Table 1: Various herbs which are used in different herbal formulations

S. No.	Name of Herbs	Formulation	Active Constituent	Use
1.	Turmeric	Face Cream	Curcumin, Curcuminoid	Coloring agent and anti-inflammatory
2.	Sandalwood	Oil	Sesquiterpene	Aromatherapy
3.	Bhringraj	Oil/Shampoo	Ecliptine alkaloid	Hair growth promotor
4.	Neem	Face wash	Nimbin, Nimbidin and Azadirachtin	Antibacterial, anti-acne
5.	Carrot	Emulsion	Carrot seed oil	Anti-aging
6.	Oat	Powder/Paste	β -glucans, tocots	Anti-inflammatory
7.	Almond	Seed oil	Vit. E	Deep cleansing of skin
8.	Myrrh	Emulsion	Resins	Wound healing
9.	Aloe vera	Cold cream/ lotion	Vit.A and Vit.E and Aloin	Antioxidant and bactericide
10	Fullers earth	Face pack	Hydrous aluminum silicates	Remove oil and dust
11	China Rose	Hair oil	Flavanoids and tannins	Improve hair health and nourishes scalp
12	Coconut oil	Hair oil	Fat (lauric acid and palmitic acid)	Hair Growth Promoter
13	Sunflower	Lip balm	Fatty acid	Soothing effect
14	Mint	Talcum powder	Menthol	Cooling effect

Table 2: Role of Herbs in different marketed herbal cosmetics

S. No.	Category	Marketed Formulation	Majority of drug/ herb	Use of herb	Use of Product
1.	Face cream	Vicco turmeric	Turmeric	Antiseptic, anti-inflammatory	Cures skin infections, inflammation,
2.	Face wash	Himalaya Face Wash	Neem	Antibacterial	Cleans impurities and helps clear pimples.
3.	Cold cream	Aloe vera moisturizing cream	Aloe vera	Soothing effect, Antioxidant	Moisturizing, Skin healing
4.	Gel	Patanjali aloe vera gel	Aloe vera	Soothing effect	Repairs dead skin cells on the scalp.
5.	Soap	Margo/ Medimix	Neem	Antibacterial And Anti fungal	Clean skin & skin pore Cleanser.
6.	Body lotion	Cocoa butter intensive body lotion	Cocoa butter	Source of fat	Naturally healing dry and sensitive skin
7.	Hair Oil	Amla hair oil	Amla	Source of Vit. C	Hair growth promoter
8.	Lip balm	Rose lip balm	Rose	Brighten helps the colour	For getting rosy lips
9.	Face pack	Sandalwood face pack	Sandalwood	Prevent the breakout of pimples	Glowing skin
10.	Skin cream	Saffron skin cream	Saffron	Antiaging	Silky glowing skin
11.	Tooth paste	Meswak/ Babool tooth paste	Babool	Cure tooth problem	Cure gum and tooth problem
12.	Sun cream	VLCC herbal suncream	Sandal wood & Aloe vera extract	Great for the skin to cleanse, detoxify, exfoliate, and heal, sooth and tone.	Provide superior nourishment to the skin making it more beautiful and flawless

5. CONCLUSION

Herbal cosmetics which are designed with new drug delivery systems with some advantages such as providing high efficacy, enhanced stability, reduce undesirable side effects and better aesthetic appearance of formulation. The usage of herbal cosmetics has been increased to many folds in personal care system and there is a great demand for the herbal cosmetics due to their lack of side effects. The use of active ingredients in cosmetics influence biological functions of skin and provide nutrients necessary for healthy skin or hair. There is much scope to launch numerous herbal cosmetics using appropriate bioactive ingredients with suitable fatty oil, essential oils, proteins and additives of herbal origin. Herbal formulations are useful as therapeutic and cosmetic applications for the treatment of various skin disorders and also for beautifying and attractiveness of skin, hair, lips, face, eyes etc.

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