



A REVIEW ON USE OF MEDICINAL PLANTS IN SKIN CARE COSMETICS

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ABSTRACT

The use of natural and organic cosmetics has become a major trend in recent years, driven by increased environment awareness and health consciousness. Particular trends in the 21st century includes interest in wellness, sustainability ethical beauty and total holistic beauty. These developments appear to present a hug opportunity for natural beauty products. The concept of cosmetics and beauty may be traced back to the down of civilization. Cosmetics are the products that are applied to the body in order to beautify, cleanse, improve appearance and increase attractiveness. Herbal cosmetics often known as products are made up of a variety of cosmetic elements that serve as a base for one or more herbal compounds that provide specific cosmetics benefits. The herbal cosmetics are natural and free from harmful chemicals as compared to other beauty products. Natural-based cosmetics are completely safe to use, cosmeceuticals have medical value which affects the biological functions of skin. The current study emphasises the significance of herbal cosmetics and herbs that are utilised in them.^[1]

KEYWORDS: Herbal Cosmetics, Health and beauty, Skin care.

1. INTRODUCTION

The skin is the body's biggest organ. Habits, health, routine employment, and climatic conditions all influence the appearance of one's skin and hair. Excessive heat dehydrates the skin throughout the summer, resulting in wrinkles, freckles, acne, sunburn and pigmentation. The server cold can also harm the skin.^[2]

Skin problems affect people of all ages and can be caused by exposure to chemical agents, micro-organisms, and biological poisons in the environment. Herbal cosmetics are natural products that comprises herb and approved cosmetics herbal elements in the form of crude or extract to provide attractiveness. Herbal cosmetics have become more popular due to their skin friendliness and compatibility with skin, widespread availability and lack of negative effects when compared to conventional cosmetics.

Many herbs are sold as cosmetics with anti-oxidant, skin care and hair care characteristics. The novel bioactive come from the kingdoms of the sea, earth and plants. Chinese herbs, vitamins and anti-oxidant, minerals, hormones, enzymes and a variety of naturals make up the majority of the ingredients. Many herbs and floras were used in ayurveda cosmetics and guard against external influences. Herbal composition has no detrimental

effects on the human body and instead supplies nutrients and other useful minerals. Cosmetics are substances that can be rubbed, sprinkle, sprayed on, injected into, or otherwise applied to the human body or any part of the body or a applied to the human body or any portion of the body for the purpose of cleansing, beautifying, promoting attractiveness or changing appearance. Herbal cosmetics are the products that contains phytochemicals derived from range of plant sources. These phytochemicals influence skin functions and supply nutrients, vitamins and minerals for healthy skin. There is a widespread assumption that chemical – based cosmetics are damaging to the skin, greater public awareness of herbal preparations has more demand for natural ingredients in cosmetics.^[3]

1.2 The requirements for basic skin care^[4]

The body's largest organ and outermost covering is the skin. Skin contains many cells and structures i.e. epidermis, dermis and hypodermis.

• **Epidermis**

The epidermis skin's outermost layer, varies in thickness depending on the area of the body. The epidermis develop s our body tone and provides a waterproof barrier. The epidermis made up of five layers. Stratum basal called keratinocytes is cell that picture manufacturer protein keratin and stores it.

Merkel cell which is responsible for stimulate sensory nerves melanocyte produces the pigment melanin gives skin colour, protect living cell epidermis from UV radiations.

Because of the cells processes that connect the cells via desmosomes, the stratum spinosum displays a spiny look.

The cell processes that connect the cells via desmosomes give the stratum spinosum, its spiky look.

The most superficial layer, the stratum corneum is exposed to the outside environment. Keratin is a fibrous protein that provides structure to hair and nails as well as water resistant to skin.

- **Dermis**

The dermis is made up of thick connective tissue, hair follicles and sweat glands as well as collagen a protein that gives skin its strength and flexibility.

- **Hypodermis**

Fat and connective tissues comprise the hypodermis.

Functions of skin:

- 1) Sensation
- 2) Protection
- 3) Absorption
- 4) Regulation of temperature
- 5) Control of evaporation
- 6) Water resistant^[5]

It's critical to understand how skin works and to take adequate care of it in order to keep it functioning properly. The skin is classified into 4 types. For each type of skin suitable ingredients are used to maintain its functions.

Following are the steps important for the basic skin care includes

- **Cleansing:**

To eliminate dirt, dead cells and contaminants a cleansing step is necessary. The herbal cleansers remove the dirt and pollutants. Widely used cleansing agent is Aloe vera for skin care cosmetics.

- **Toning:**

The toners tighten the skin and protect it from many of the pollutants that are floating around in the air. Grape seeds oil is use as astringent which is very useful for skin toning. Fresh lemon juice is also use as toner. Lemmon peel oil act as natural astringent.

- **Moisturizing:**

Moisturizing the skin gives healthy glow and protect it from aging. Glycerine, sorbitol, rose water, jojoba oil, aloe vera are some of the herbal moisturisers available.

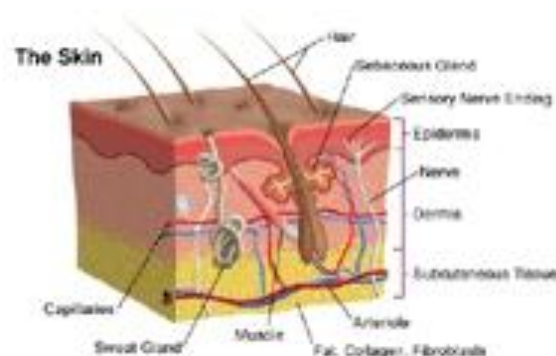


Fig. 1: Human skin.

1.3 Advantages of herbal cosmetics as a favourable choice:

- Compatible with all types of skin
- Greater safety and efficacy
- Greater diversity for selection
- No need of animal testing
- Budget friendly^[7]

1.4 Beneficial effects of herbs as Cosmeceuticals:

- Skin Lightening
- Prevent hyper pigmentation
- Prevent skin wrinkles
- Treat skin ailments
- Beatification
- inhibit skin dryness^[8]

Herbs used in skin care Cosmetics/Cosmeceuticals

2. Herbs with skin care effects:

2.1 Coconut oil

Coconut oil is a fantastic skin moisturizer and softener. Coconut oil obtained from the fruit or seed of coconut palm tree *Cocos nucifera* a member of the Arecaceae family. Glycerides and low chain fatty acids are abundant in coconut oil. Coconut oil enhance muscle tone and relax muscles therefore also utilized for massage purpose other than cosmetics.

Benefits of coconut oil for skin care –Moisturizing dry skin, including in people with conditions such as eczema. Reducing inflammation, which may result from UVB rays. Promoting wound healing. Antibacterial, antifungal, and antiviral properties.^[9]



Fig. 2: Coconut tree.

2.2 Sunflower oil

The seeds of *Helianthus annuus*, a member of the Asteraceae Family, are used to make sunflower oil. Tocopherols, carotenoids and waxes are included in this non-volatile oil. Sunflower oil provide helpful hydrating and smoothing characteristics to the skin. In many body and face preparations containing sunflower oil mostly used for cooling and moisturizing effects.^[10,11]



Fig. 3: Sunflower.

2.3 Jojoba oil

Jojoba oil is a linear-structured liquid wax with long chain. It eliminates odours as well as colour. The seeds of desert shrub *Simmondsia Chinensis* which belongs to Simmondsiaceae family, are used to extract jojoba oil. Colour and odour can simply be removed from Jojoba oil. It is also utilised a moisturiser in cosmetic and is oxidatively stable.



Fig. 4: Jojoba tree.

Benefits of jojoba oil for skin care

Retains moisture:

Jojoba oil is a humectant. It indicates that jojoba oil helps to keep moisture in the skin by forming a protective barrier on the surface of the skin.

Jojoba oil is used in to face cleansers because of its ability to retain moisture. Use KamaAyurveda's Rose Jasmine Face Cleanser to efficiently cleanse pollutants and makeup without stripping your face of its natural

moisture. Jojoba oil softens and rejuvenates skin, as well as reduce fine wrinkles, and increasing skin elasticity.^[12]

Natural cleanser:

I'm sure most of you might have heard of oil cleansing. The idea is to cleanse the face and remove filth from the skin with oil rather than soaps or other face washes that contain harsh chemicals. Jojoba oil can be used to cleanse the skin gently and effectively without dragging or pulling it.^[13]

2.4 Rose oil

Rose oil is derived from the *Rosa damascena* plant, which belongs Rosaceae family and has a variety of therapeutic properties. The lovely odour of rose oil makes it popular in the perfume industries due to its pleasant odour. It also maintain skin health and texture when applied topically.



Fig. 5: Rose flower.

Benefits of rose oil for skin:

- Regenerates and heals the skin.
- Increases collagen production and skin elasticity
- Assists in brightening and evening out the skin
- Fights free radicals
- Intensely hydrates and moisturizes the skin
- Combats acne^[14]

3. Herbs with Anti-Inflammatory effect:

3.1 Aloe vera

Aloe vera is herbal plant obtained from *Aloe barbadensis* miller it belongs to family Liliaceae. Aloe extensively employed for cosmetic purpose. Aloe Vera is natural skin healer, moisturizes and softener. Aloe Vera contains cleansing amino acid such as leucine, isoleucine and glycosides. Aloe Vera boots collagen and elastin production, making skin more supple and wrinkle-free.^[15]

Benefits of aloe vera for skin:

- Healing properties.
- Effects on skin against UV and gamma radiations.
- Anti-inflammatory action.
- Anti-aging and moisturizing effect.
- Antiseptic eff



Fig. 6: Aloe vera.

3.2 Sandalwood

Sandal wood is an evergreen tree with fragrant scent. *Santalum album* tree is a member of the Santalaceae family. Sandalwood is an aromatic evergreen tree. Sandalwood oil and powder are widely utilised for their aesthetic and health benefits. Potent anti-inflammatory effect of sandalwood oil work incredibly well to heal acne, psoriasis, eczema and other skin infection. It is used in the form of face pack and face mask.^[17]



Fig. 7: Sandalwood tree.

4. Herbs with Anti -Acne effects:

4.1 Green tea

Green tea contains catechins, which are polyphenols anti-oxidans. The leaves of *Camellia sinensis* a member of the Theaceae family, are used to make green tea. Green tea protect the skin cells from harm and it reduces inflammation. Green tea contains high amount of antioxidants which may reduce sebum production and inflammation.^[18,19]



Fig. 8: Green tea.

4.2 Manjistha

Manjistha, often called indian madder, is a *Rubia cordifolia* species, Rubiaceae is family of majjistha plant.

Manjistha used against skin, blood and urinary disease. Manjistha is potent drug used in severe skin disorders and it is available in the form of gel & ointments. Manjistha is a well-known one-step cure for different skin disorders according to ayurveda. Owing to its blood purifying properties which helps in removing toxins from the blood, it also aids in the treatment of variety of skin ailments. It not only helps in shielding the skin from oxidative radical damage due to the harmful UVA and UVB rays, but also reduces the risk of the various signs of aging like wrinkles, blemishes, spots, fine lines, and dark circles. It is also beneficial for treating allergic conditions like acne, pimples, zits, psoriasis, scabies, eczema and many more. It is even useful in healing cracked heels.^[20]



Fig. 9: Manjistha plant.

5. Herbs with antiseptic effects:

5.1 Turmeric (Haldi)

Turmeric, *Curcuma longa* belonging to family Zingiberaceae. Turmeric is skin protecting agent as well as antiseptic in nature and also used in anti-inflammatory, wound healing, anticancer and antibacterial activity. Antioxidant activity of turmeric protect the skin cells from radical damage and quickly recover the wounds.

Benefits of turmeric for skin:

- Act as an antipsoriasis agent.
- Protects the skin from UVB radiations- induced damage.
- Turmeric prevents premature aging of skin.
- Anti-inflammatory and antibacterial properties
- Used for treatment of acne.^[21]



Fig. 10: Turmeric

6. Herbs with depigmentation effects:

6.1 Cucumber

Cucumber, *Cucumis sativus* is member of Cucurbitaceae family. Cucumber is used to manufacturer sheet mask and gel because it contains high amount of vitamins A and C and has cosmetic benefits for skin. Cucumber have good healing and cooling properties. The extract The extract of cucumber used for skin problems, wrinkles, sunburn and also used as an antioxidant and it also used as astringent



Fig. 11: Cucumber.

7. Herbs with Anti-Aging effects:

7.1 Carrot

Carrots are derived from the Apiaceae family from plant *Daucus carota*. Carrots are important herbs because they are high in vitamin A and other vitamins. Carrot seed oil has rejuvenating and anti-aging properties. Beta carotene and small quantity of alpha carotene give carrots their bright orange colour.^[23]



Fig. 12: Carrot.

7.2 Ginkgo

Ginkgo comes from the ginkgo tree, *Ginkgo biloba* belonging to family Ginkgoaceae. Ginkgo tree has been used to cure problems like poor blood circulation, hypertension, poor memory and depression for thousands of years. It also has an antioxidant and anti-inflammatory properties. Ginkgo is abundant in flavonoids and terpenoids, antioxidants that protect cells from oxidative cell damage caused by free radicals. Antioxidants are believed to help reduce the risk of cancer Ginkgo is used in the form of micro – foliant.^[24]



Fig. 13: Ginkgo tree.

8. Herbs with Anti-Wrinkle effects:

8.1 Apricot

Apricot fruits, obtained from plant *Prunus Armeniaca* belongs to family Rosaceae. Apricot fruit vitamins are good source of collagen which many people lack and is the major cause of wrinkles. Collagen boost elasticity makes skin younger, looking radiant when applied topically. Apricot rich in vitamin C, it can help to protect skin cells from UV radiations, reduce signs of early wrinkles and improve skin elasticity.^[25]



Fig. 14: Apricot.

9. Herbs with sunscreen effects:

9.1 Walnut

The extract of walnut made from the fresh green shells of english walnut *Juglans* belongs to family Juglandaceae. Walnut aqueous extract is a self - tanning sunscreen agent. It is use to the skin as a scrub to reduce sun damage^[26]



Fig. 15: Walnut tree.

10. Herbs with Anti-Oxidant effects:

10.1 Amla

Amla is fruit of *Emblica officinalis* belonging to family *Phyllanthus emblica*, Indian gooseberry is a common name for *Emblica officinalis* which grows throughout the India. Vitamin C, tannis and minerals abound in amla. Total phenol levy respond well to amla flavonoids and total tannis assay that is used in the form of scrub. Amla used for various types of skin disorders i.e. scabies, dry skin and skin wrinkles.^[27,28]



Fig. 16: Amla tree.

10.2 Vitamin E (Alpha – tocopherols)

Vitamin E is the lipophilic antioxidant that is required for the proper functioning of the plasma membrane and tissues. Vitamin E refers to a group of 30 naturally occurring chemicals that all exhibit vitamin E like properties. Tocopherols are a collection of eight chemicals that make up the vitamin E complex. Tocopherol is fat soluble anti-oxidant that work as scavenges for free radicals, especially highly reactive singlet oxygen. Tocopherol like vitamin C is endogenous non-enzymatic antioxidant that occurs naturally. Excessive amount of tocopherol available in vegetables, Wheat germ oil, sunflower oil, safflower oil and seeds, corn, soy and some types of meat are examples of vegetable oils.^[29]

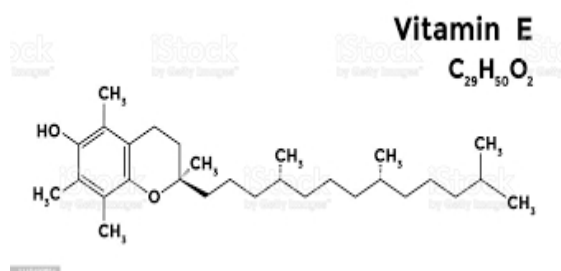


Fig 17: Structure of vit. E

10.3 Vitamin C

Vit C (Ascorbic acid) is required for precollegen & lysine hydroxylation. Photo damaged skin can be improved with vitamin C. Vitamin C efficiently stimulates collagen repair thus, removes the effect of photo aging on skin.^[30]

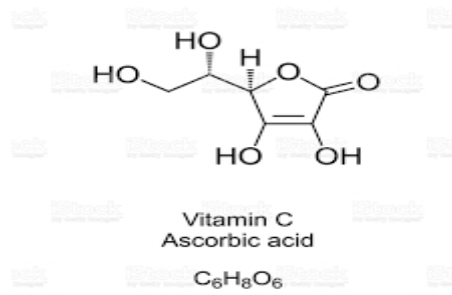


Fig. 18: Structure of vit. C.

CONCLUSION

Natural ingredients are getting more popular. Herbal plants are increasingly being used in cosmetic formulations and a Formulation including active principles of natural origin can protect the skin from hazardous elements. The use of medicinal herbs by the people of seems to be well-known in their culture and history. In this investigation we found a variety of plants that peoples use to treat dermatological problems and as cosmetics. Some plants were discovered to have both medicinal and cosmetic properties have been discovered. It is regarded to be safe for long period of time.

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