



## The Review on Herbal Cosmetics

*Shubhangi Gavit<sup>1</sup>, Asst.Prof Vijay Pawar<sup>2</sup>*

Swami Vivekanand Institute of Pharmacy, Mungase

### ABSTRACT:

Humans have used herbs for various purposes such as food, medicine, and beauty. The word "cosmetic" comes from the Greek word "kosmtikos", meaning force, placement, or art of decoration. Cosmetic origins form an ongoing narrative in the evolving history of his Man. A prehistoric man in 3000 BC. He used color in his decorations to attract his animals he was trying to hunt. This man also survived an enemy attack by coloring his skin to his and adornment his body for protection in order to provoke fear in the enemy (human or animal). The origins of cosmetics are associated with hunting, combat, religion, superstition, and later with medicine. Herbal ingredients that are used to provide only defined cosmetic benefits are called "herbal cosmetics".

**Keywords:** Herbal cosmetics, skin cosmetics, tooth cosmetics, hair cosmetics

### Introduction:

Advantages of herbal cosmetics over conventional cosmetics:

1. Does not cause allergic reactions and has no negative side effects.
2. Blends well with skin and hair.
- 3 These are very effective in smaller amounts than other cosmetics.
4. Extraction of the plant form reduces the bulk properties of the cosmetic and provides the appropriate pharmacological effect.
5. Easily available and found in a wide variety of plants.
6. High stability, purity and efficacy of herbal ingredients.
7. Easy to make.
- 8 Herbal cosmetics are easier to store and handle and can be used for a long time.
9. It's cheap Raw Materials Commonly Used in Herbal Cosmetics

Skin beauty depends on health, habits, daily routine, environmental conditions and care. Summer dries the skin, causing wrinkles, freckles, imperfections, blemishes and sunburns. In winter, skin damage occurs in the form of cracks, cuts, maceration and infections.

Skin disorders occur in all age groups and can be caused by environmental microbes, chemicals, toxins, exposure

to microbes, chemicals, biotoxins, and sometimes malnutrition. The natural ingredients of the plant do not cause side effects to the

human body. Instead, it enriches the body with nutrients and other beneficial minerals. He relied only on the natural knowledge accumulated in Ayurveda. Ayurvedic science used many herbs and flowers to create his cosmetics for beautification and protection from external aggression.

### BASIC SKIN CARE:

Skin is the outermost covering of the body. It is the largest organ of the body. Representing the front line of defense, the skin contains many cells and structures, mainly he is divided into three layers.

#### 1. Epidermis:

The outermost layer varies in thickness on different parts of the body. Providing a waterproof barrier, creates a skin tone. The epidermis is divided into 5 layers. The stratum basale, called keratinocytes, are cells that make and store keratin proteins. Keratin is a fibrous protein that gives hardness and water repellency to hair, nails, and skin. The stratum basale, called keratinocytes, are cells that make and store the protein keratin. Keratin is a fibrous protein that gives hair, nails and skin hardness and water resistance. marker cells that stimulate sensory nerves. Melanocytes produce the pigment melanin, which gives the skin its color and protects the living cells of the epidermis from ultraviolet radiation. The stratum spinosum has a spiky appearance due to cellular processes that connect cells through structures called desmosomes. The lucidum is the smooth, translucent layer of the epidermis. The stratum corneum is the most superficial layer and is exposed to the external environment. Keratin is a fibrous protein that gives hair, nails and skin hardness and water resistance.

#### COSMETIC PREPARATION:

The physical state of cosmetic formulations falls into three categories: Solids: face powder, talcum powder, face pack, mask, compact powder, cake makeup, etc.

**Semi solids:**

Cosmetic products such as creams, ointments, liniments, wax-based creams and pastes. Suitable bioactive components of their extracts are used in formulations along with the necessary components that are basically used in cosmetics. Selection of an appropriate emulsifier and modified methodology is required to obtain the desired product with the specified parameters. Herbal Cosmetics formulations are refined and delicate

technical profiles to preserve botanical bioactivity during excessive processing and ensure is available after application to skin. Manufacturers are encouraged to ensure the quality of their products through his tests systematically at their own level.

**Dermis:**

The dermis contains tough connective tissue, hair follicles, and sweat glands. It also contains collagen, a protein responsible for skin firmness and elasticity.

**Hypodermis:**

The subcutaneous tissue is composed of fat and connective tissue. Fat acts as an insulator for the body.

**Oils:**

Oils are derived from botanical or mineral sources and are used in cosmetics. Examples of vegetable oils include almond oil, vapo oil, castor oil, olive oil and coconut oil. Examples of mineral oils are Light Paraffin and his Heavy Paraffin.

a) **Almond Oil:**

Fixed oil obtained by pressing prune seeds of the Rosaceae family. The oil is pale yellow with a characteristic odor. The active ingredient is mainly a mixture of glycoside and oleic, linoleic, myristic and palmitic acids. It is used in the preparation of creams and lotions due to its emollient effect.

b) **Arachis Oil:**

This is also a fixed oil extracted from the seeds of the legume family. The oil is pale yellow with a slightly nutty scent. Refined peanut oil is colorless and contains active ingredients such as oleic acid, linoleic acid and a few other acids. Cloudy at 3°C and solid below. It is used to make hair oils and brilliants. Castor Oil: An oil extracted from the seeds of his species of castor bean belonging to the Euphorbiaceae family. There is a slight odor. The oil is yellow or colorless. It is composed of a mixture of glycosides, of which 80% ricinoleic acid is the main component, forming a clear liquid at 0°C. Used as an emollient in lipstick, hair oil, cream, and lotion formulations.

c) **Olive Oil:**

This oil is extracted from the fruit of the *Olea europaea* plant, which belongs to the Oleaceae family. The oil is pale yellow or greenish yellow with a slight odor. Composed of glycerides of oleic, palmitic, linoleic, stearic and myristic acids. At low temperatures, it is solid or partially solid. has softening, soothing properties. Used to make creams, lotions and bath oils

d) **Coconut Oil:**

This oil is extracted from the dry, solid part of the endosperm of the coconut - *Cocosnucifera*, family *Palmae*. White or pearly white greasy mass in winter, colorless in summer.

e) **Light liquid paraffin:**

It consists of a mixture of hydrocarbons in the form of a colorless or odorless oily liquid. The viscosity and weight per ml (0.83-0.87 g) are both low.

**Colours:**

Colors have been used in cosmetics since ancient times. Basically, her willingness to purchase cosmetics is controlled by her three senses: sight, touch, and smell. Color is therefore one of the most important ingredients in cosmetic formulations. Color is the visual sensation produced by a particular wavelength or group of wavelengths passing through an object through one or more of the phenomena of radiation, reflection, refraction, or transmission. Here we briefly discuss natural pigments such as cochineal, saffron and chlorophyll.

a) **Cochineal:**

Cochineal is a red dye obtained from the dried female insect *Dactilopiuscoccus*, belonging to the family of the *Coccidae* family. Carminic acid is the main coloring component of cochineal. When crystallized, carminic acid forms red needles that darken at 130°C and char at 250°C. For carmine preparation, cochineal is extracted with water. Alum is added to this solution to precipitate a red aluminum salt called carmine lake.

b) **Saffron:**

It consists of the stigma and tip of the stem of the *Crocus sativa* plant, which belongs to the family *Iridaceae*. It is a perennial herb that grows in the Jammu and Kashmir region of India. Saffron powder is yellowish and sparingly soluble in water, so it is used as a flavoring and coloring agent in food preparations. Saffron contains many carotenoids. Crocin is an important natural saffron carotenoid. Picrocrocin is a colorless, bitter glycoside responsible for the characteristic saffron odor.

c) **Chlorophyll:**

It is a natural green pigment that is abundant in nature. It is a component responsible for photosynthesis of.

d) **Rose:**

It is obtained by steam distillation of the petals of *Rosmarinus officinalis* belonging to *Menthaceae*. To obtain the rose oil, the flowers are collected just before sunrise, before they bloom.

e) **Jasmine Essential Oil:**

The oil obtained from the flowers of *Jasmine grandiflorum*, which belongs to the *Oleaceae* family, was obtained by solvent

extraction in and its essence is used in the perfume industry.

**f) Lavender:**

It is obtained from the flowers and stems of lavender, which belongs to the Labiatae family.

**g) Tuberose:**

Tuberose's nickname is "Lady of the Night". The oil is a brown viscous liquid, sweet and he smells heavy and sensual.

**h) Geranium:**

This oil is extracted from the flowers, leaves and stems of Pelargonium graveolens, which belongs to of the Geraniaceae family. Its essence is obtained from the flowers and stems of the plant through a distillation process. Geranium is known as geranium bourbon.

**i) Champa:**

Derived from the flowers of Michelia Champaca. Flower color ranges from yellow to dark orange.

**Classification of Herbal Cosmetics:**

1. Skin cosmetics

- Cream
- Scrub
- Lip balm
- Powder
- Lotion & Liniment
- Face pack
- Deodorant & antiperspirant
- Bath preparation

2. Hair cosmetics:

- Shampoo
- Hair Oil
- Hair colourant

3. Tooth cosmetics

- Toothpowder
- Toothpaste
- Mouth wash

4. Nail preparations

5. Shaving preparations

6. Foot preparations Applications of Herbal Products in Cosmetics.

• Herbal Skin Care Products:

Lavender silk soap, lotion cream, body powder, lavender herbal body powder, 7 skincarecreams.

• Herbal Hair Care Cosmetics:

(Lawsonia Inermis), Amla (Emblca Officinalis), Shikakai (Acacia Cincinna), Brahmi (BacopaMonnieri), Bhringraj (Eclipta Alba), Guarkernmehl (Cyamopsis tetragonolobus).

• Herbal Lip Care Cosmetics:

Herbal lipstick, herbal lip gloss, herbal lip balm, herbal lip plumper

• Herbal Eye Care Cosmetics:

Eye Makeup, Eye Shadow, Eye Gloss, Liquid Eyeliner Creams: Moisturizing Aloe Hand Cream, Rich Face and Hand Cream, Herbal Moisturizer • Herbal Oils: Herbal Oils: Helps treat hair loss, Hair Loss, Thinning Hair, Dandruff, Irritation, Scalp Itching, patchy hair loss, maintaining fine hair

• Herbal Perfumes & fragrances:

Citrus Scent: The bright, fresh character of citrus notes (bergamot, orange, lemon, petitgrain, mandarin, etc.) is often combined with more feminine scents (floral, fruity, chypre).

• Chypre Fragrance: Based on a complex of woody, moss and floral, sometimes with sides. Chypre Fragrance is slightly dry and not overly sweet.

Protectant: In cream formulations, silicones act as protectants. Combining Silicone with other barrier agents such as petroleum jelly, beeswax, and paraffin can make an excellent Barrier Her cream.

a) **Bleaching Agents:** The most commonly used bleaches are listed below. Mercury compounds: Mercuric chloride (HgCl), red mercuric oxide (HgO), and mercuric ammonia are examples of mercuric compounds that can be used for skin bleaching benefits. Currently, the use of mercury compounds in cosmetics is prohibited.

b) **Hydroquinones:** They are primarily used as bleaching agents to temporarily lighten the skin at concentrations of 1.5% to 2%, and at concentrations of 5% may cause redness and burning. Hydroquinone's reaction occurs when exposed to sunlight. Similar effects can be seen after discontinuing cosmetics containing hydroquinone

c) **Catechol and its derivatives:** Catechol exerts some skin illuminating effect. 4-Isopropyl Catechin has been found to

be one of the most effective bleaching agents. They can cause irritation and sensitization reactions at concentrations above 3%.

- d) **Ascorbic Acid and its derivatives:** Ascorbic acid does not appear to be very effective as a depigmenting agent, but its use has been shown to be safe. It is mainly used in whitening creams containing hydroquinone as a stabilizer (antioxidant). Ascorbyl oleate used in skin bleaching cream to bleach freckles on human skin is used at levels of 3% and 5%

#### **Formulation and evaluation:**

Although non-herbal ingredients are commonly used in cosmetic formulations, herbal ingredients are now gaining more acceptance among consumers. The use of herbal ingredients should be based on experience so as not to alter the properties of the formulation. Formulations of botanical cosmetics follow the same procedures as synthetic-derived cosmetics. Formulation is based on selection of appropriate emulsifiers, appropriate composition of ingredients, and modified methodology to obtain the desired product [37-40]. Herbal cosmetics should retain the bioactivity of the plant even when over-processed to ensure their effectiveness after application to the skin. Manufacturers must ensure the quality of raw materials and final products through quality control testing. Other parameters tested included sensory properties, pH, viscosity, refrigeration and light stability of. A major drawback of , which contains herbal ingredients, is microbial attack, making it unsuitable for human use [41-43]. Therefore, care should be taken to completely prevent bacterial contamination. A list of various categories of ingredients used in cosmetics and their herbal counterparts is given in (Table-3). Herbal Cosmetic Evaluation is very important and there is no strict and rapid code of conduct that can be established for all products or product types. is determined by various patch tests that can be used to identify the cause of irritancy. Primary irritation test, eye irritation test (e.g. rabbit eye irritation test), animal skin irritation test Propheticor predictive studies, including irritation studies, and human irritation studies. This test is designed to help identify potential irritation and sensitization of new cosmetic ingredients. Evaluation of facial cosmetics is divided into physical parameters, aesthetics and pressure tests. Physical parameters include color, adhesion, pH, net content, odor, particle size and shape, and finally moisture content. In Aesthetics, the parameters evaluated are shape control, color distribution, bleeding test, adhesion, spreadability, opacity and finally handling test. Pressure tests are only evaluated on pellets to check for the presence of air pockets. Dentifrices are evaluated for abrasiveness, gloss, consistency, pH, specific gravity, taste, odor, color, moisture content, and aroma. Hair conditioners are evaluated for softness, shine, glide, body texture and hold, eye irritation, oral toxicity, fragrance testing, color and consistency. Cosmetics, in the form of semi-solid products, are tested for bleed and rheology in addition to other usual tests. Microbial, toxicity, and stability studies were also conducted to evaluate Cosmetics. Traditional documented uses of herbs in cosmetics are available with approximately recent studies demonstrating the usefulness of these ingredients in cosmetics.

#### **Conclusion:**

Herbs play an important role, especially in modern medicine, where the adverse effects of food processing and overdosing have reached alarming proportions. These have now grown to types in cosmetics, foods, teas and alternative medicines. Growing interest in herbs is part of the lifestyle change movement. The move is based on the belief that plant has tremendous medicinal potential. People's knowledge of the medicinal plants they use seems to be well known in their culture and traditions. Current research has identified a number of plants that humans use to treat dermatological conditions and as cosmetics. Some plants have been found to have both medicinal and cosmetic benefits. Quality Control tests must be reliable over time.

There is plenty of room for launching numerous herbal cosmetics containing inappropriate bioactive ingredients, including fixed oils, essential oils, proteins and suitable additives. Along with the composition of ingredients, it is mandatory to conduct safety tests according to existing and well-documented standards.

#### **References:**

1. M. Vimladevi; Textbook of Cosmetics; Edition (2005); CBS Publishers & Distributor; Page No. 29, 67, 88, 101, 253.
2. Shah C.S., Quadry J.S. "Textbook of Pharmacognosy" B. S. Shah Prakashan, Ahmedabad 5th edition 1985-86, 2007-289.
3. Kokate C.K., Purohit A.P., Goyal S.B. "Pharmacognosy" Nirali Prakashan, Pune, 29th edition, 2004; 167-250.
4. Trease E.G., Evans C.W., "Pharmacognosy", ELBS Publisher, USA. 12th edition, 1985, 383-413, 488-509.
5. Torkelson R.A., "The Cross Name Index To Medicinal Plant", Volume 4 CRC Press, 1999; 1571.
6. Asolkar L.V., Kakkar K.K. Chakre O.J., "Second Supplement to Glossary of Indian Medicinal Plant with active Principles", Part 1, Publication Information Directorate, New Delhi, 2nd Edition, 1992; 47.
7. Bhaskar Rama Murti P., Seshadri T.R., "Calcium Salt Containing Extract of the Leaves", Department of Chemical Technology, Andhra University Walter.
8. Chatterjee A., Prakash C.S., "The Treatise of Indian Medicinal Plants", Vol.5, National Institute of Science Communication, New Delhi, 1997; 36.
9. Taylor V.E., Brady R.L., Robbers E.J., "Pharmacognosy", 8th Edition, Lea Febiger, USA, 1981; 57-77.
10. Pandey Shivanand, Meshya Nilam, D. viral. Herbs play an important role in the field of cosmetics, International journal of pharm Tech Research.
11. Harry RG, "Modern Cosmeticology: vol.1", L. Hill, 1962.
12. Kole, Prashant L and Jadhav, Hemant R and Thakurdesai, Prasad and Nagappa, Anantha Naik, "Cosmetic potential of herbal extracts," CSIR, Vol. 4, pp.315-321, Aug 2005.
13. Sumit, Kumar, Swarankar Vivek, Sharma Sujata, and Baldi Ashish. "Herbal cosmetics: used for skin and hair." Invent. J. pp. 1-7, Oct 2012.
14. Lawton, S., "Skin 1: the structure and functions of the skin," Nursing Times, vol. 115, pp.30-33, Dec 2019.

15. Van Loon, Gabriel, "Charaka Samhita: Handbook on Ayurveda," Volume I–PV Sharma & ChaukhambhaOrientalia, 2003.
16. Gediya, Shweta K., Rajan B. Mistry, Urvashi K. Patel, M. Blessy, and Hitesh N. Jain. "Herbal plants: used as a cosmetic." *J Nat Prod Plant Resour*, vol. 1, no. 1, 2011, pp. 24-32.
17. Athar, M. and Nasir, S.M, "Taxonomic perspective of plant species yielding vegetable oils used in cosmetics and skincare products," *African journal of biotechnology*, vol. 4, pp.36-44, Mar 2005.
18. Awasthi, P. K., and S. C. Dixit., "Chemical composition of *Curcuma Longa* leaves and rhizome oil from the plains of Northern India." *Journal of Young Pharmacists*, vol. 1, pp. 312, Oct 2009.
19. Koch, Wojciech, Justyna Zagórska, Zbigniew Marzec, and Wirginia Kukula-Koch., "Applications of Tea (*Camellia sinensis*) and Its Active Constituents in Cosmetics." *Molecules*, vol. 24, p. 4277, Jan 2019.
20. De Caluwé, Emmy, Kateřina Halamová, and Patrick Van Damme., "Tamarindus indica L.–A review of traditional uses, phytochemistry and pharmacology." *Afrika focus*, vol. 23, pp. Feb 2010.
21. Joshi, Laxmi S., and Harshal A. Pawar., "Herbal cosmetics and cosmeceuticals: An overview." *Nat Prod Chem Res*, vol. 3, pp. 170.
22. Kadam VS, Chintale AG, Deshmukh KP, Nalwad DN., "Cosmeceuticals an emerging concept: A Comprehensive Review," *International journal of research in pharmacy and chemistry*, vol. 3, pp.308-316, 2013.
23. FUJIYAMA-FUJIWARA, Yoko, Rumi UMEDA, and Osamu IGARASHI. "Effects of sesamin and curcumin on  $\Delta 5$ - desaturation and chain elongation of polyunsaturated fatty acid metabolism in primary cultured rat hepatocytes." *Journal of nutritional science and vitaminology*, vol. 38, pp. 353- 363, 1992.
24. Mazumder, Abhijit, Krishnamachari Raghavan, John Weinstein, Kurt W. Kohn, and Yves Pommier. "Inhibition of human immunodeficiency virus type-1 integrase by curcumin." *Biochemical pharmacology*, vol 49, pp. 1165-1170, April 1995.
25. Mesa, M. Dolores, M. Carmen Ramírez-Tortosa, C. M. Aguilera, and A. Gil. "Nutritional and pharmacological effects of *Curcuma longa* L. extracts." *Recent research developments in nutrition*, vol. 3, pp.157-171, 2000.
26. Bhagirathaswami-Ratirahasya-Koka kavivirachita (13th cen.A.D.)-Lohia S.C.195/2. Harison Road, Calcutta: 1930.P. 236. Chapter 15:84
27. Upadhyaya S.C., Ratirahasya (13th Cen.A.D.) Mumbai: D.R. Taraporevala Sons and Co. Pri. Ltd; 1965.P.96. Chapter 15:84.
28. Charaka Samhita, Handbook on Ayurveda, Editor, Gabriel Van Loon, 2002-2003 Vol 1.
29. Prashant, L., Kole et al, Cosmetics potential of herbal Extracts, natural Product Radiance, Vol 4(4), 2005, p 315-321.
30. The Wealth of India: A Dictionary of Indian raw Materials and Industrial products- Raw materials Series, Publication & Information Directorate, CSIR, New Delhi, Vols I-XI, 1948-1976; Revised Series IA, 1985; 2B, 1988; 3 Ca-Ci, 1992.
31. Chopra R.N., Nayar S.I., Chopra I.C., Glossary of Indian Medicinal Plants, Publications & Information Directorate, CSIR, New Delhi, 1956.
32. D'Amelio F.S, Sr, In: Botanicals A Phytocosmetic Desk Reference (Ed. FS D'Amelio, Sr), 1999, CRC Press, London.
33. Kumar S, Medicinal Plants in Skin Care Director, Central Institute of Medicinal and Aromatic Plants, Lucknow, 1994.
34. Thakur R.S., Puri, H.S., Hussain, A, In: Major Medicinal Plants of India, 1989, CIMAP, Lucknow.
35. The British herbal Pharmacopoeia, British Herbal Medicine Association, 1996.
36. Ceres A, The healing power of herbal teas. Thorsons Publishers, London, 1984.
37. Gabriel.K.L et al, Application of new technologies for the evaluation of the skin changes, *Cosmet.Toil.Manuf*, 1991/2, 215.
38. MacLennan.A et al, Comparative assessment of hair talc slip using a sensory analysis technique, *Int.J.Cosmet. Chem*, 1992, 27(1), 3.
39. Rennie.J.H.S et al, A Model for the shine of hair arrays, *Int.J.Cosmet.Sci*, 1997, 19(3), 131.
40. Poucher, W.A., Perfumes, Cosmetics and Soaps, Vol.3, Cosmetics 6th edn. Chapman and Hall, London, 1941.