



**AGING AND SKIN CARE AYURVEDIC CONCEPTS**

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Article Received on 21/09/2021

Article Revised on 11/10/2021

Article Accepted on 01/11/2021

**ABSTRACT**

In the beauty, health and wellness industry, the connection between Ayurveda, anti-aging and cosmeceuticals is becoming increasingly important. Ayurvedic cosmeceuticals are from the civilisation of the Indus Valley. Modern developments in studies revolve primarily around the anti-aging principles outlined in Ayurveda: Vayasthapana (age defying), Varnya (brighten skin-glow), Sandhaniya (cell regeneration), Vranaropana (healing), Tvachya (nurturing), Shothahara (anti-inflammatory), Tvachagnivardhani (strengthening skin metabolism) and Tvagrasayana (retarding aging). There is extensive use of many rasayana crops like *Embllica officinalis* (Amla) and *Centella asiatica* (Gotukola).

**KEYWORDS:** Ayurveda, anti-aging, cosmeceuticals, beauty, skin care.

**INTRODUCTION**

Beauty, health, fitness, and anti-aging treatments are all part of the modern notion of wellness, which is predicted to be worth \$1 trillion by 2010. Consumers today clearly value age-prevention over any other area of cosmeceuticals, according to Euro Monitor International's current Industry analysis. Hence the naturals and wellness segment basically targets consumers in the 35–55 age group for anti-aging cosmeceuticals, and even teens who want to postpone the aging process.<sup>[1]</sup>

Cosmeceuticals are topical cosmetic pharmaceutical hybrids intended to enhance health and beauty through ingredients that influence the skin's biological function.<sup>[2]</sup> The various topical application products that delay and/or reverse visible signs of aging are termed anti-aging cosmeceuticals. Research trends in anti-aging skin care products are moving towards developing new plant extracts and botanical ingredients based on their traditional medicinal uses.<sup>[3]</sup>

Ayurveda is one of the most ancient medical traditions practiced in India, Sri Lanka and other South Asian countries, and has a sound philosophical and experiential basis.<sup>[4]</sup> Atharvaveda, Charak Samhita,<sup>[5]</sup> and Sushruta Samhita are its main classics, giving detailed descriptions of over 700 herbs. Ayurveda has several formulations for management of aging and related conditions. Its literature describes over 200 herbs, minerals and fats to maintain and enhance the health and

beauty of the skin.<sup>[6]</sup> Today there is once again a revival of preference for natural products, and in recent years there has been a great upsurge in the study of Indian herbs.<sup>[7]</sup>

**Ayurvedic Cosmeceuticals**

Ayurvedic cosmetics have their origins in the Indus Valley Civilization. The use of cosmetics was aimed not just at improving one's exterior look, but also at gaining longevity and good health (Sanskrit - Aayush and Aarogyam). In ancient India, there is evidence of highly refined self-beautification notions and a wide range of cosmetics used by both men and women. Many of these practices depended on the season (Rutus) and were subtly interwoven with daily routine (Dinacharya). The whole range of cosmetic usage and its practice as conceived by the ancient Indians was based on natural resources.<sup>[8]</sup> Skin care procedures forming the daily routine described in Ayurvedic literature consist of numerous formulae involving herbs and other natural ingredients. They were used as external applications in the form of packs, oils, herbal waters, powders etc.

Applications of these as pastes have been classified into several kinds based on the temperature, duration and thickness of application, effect of the application for healing, beautifying, anti-aging etc.<sup>[9,10]</sup>

Ayurvedic cosmeceuticals are highly regarded for their natural, holistic effects. Herbal extracts, fruit extracts, and essential oils are increasingly being employed efficiently in medicines, food supplements, and personal

care products based on Ayurveda's broad and well-established knowledge. Ranges of Ayurvedic cosmeceuticals are available for ageless skin smoothing its imperfections, and increasing its hydration level, thus restoring a radiant and healthy look.

Such preparations actively protect the skin and prevent premature aging.<sup>[11]</sup>

### Cosmeceutical Trends

Regulatory and market trends in the European Union, the United States, and Japan, cosmetics are not regulated as such. Most are regarded as cosmetics in the EU; in the US, they are regarded as medications that have most likely not been approved by the US Food and Drug Administration (FDA). In Japan, they are regulated as quasi-drugs.<sup>[12]</sup> Today, new challenges are presented to government regulatory agencies as new molecules from natural sources with true biological activity are being discovered and tested. Traditional recipes of historical significance have become important segments of the cosmeceutical market. Whereas there are clear guidelines for manufacturing and advertising drugs as compared to cosmetics, the same is lacking for cosmeceuticals. Being hybrids, cosmeceuticals are difficult to classify. The tightening of government regulations for products claims and safety testing are on the horizon.<sup>[13]</sup>

One of the fastest expanding categories of the health and wellness business is natural and organic cosmeceuticals. Natural and organic personal care product sales were \$7.9 billion in 2008, according to US Market Research Data, and are predicted to exceed \$10 billion by 2010. Because the US is a less mature market with lower penetration than Europe, it is predicted to grow at a quicker rate of 8.2% vs 4.6 percent in Europe.

Standards for organics include the USDA National Organic Program (NOP), which enforces the Organic Food Production Act (OFPA). Organic and Sustainable Industry Standards (OASIS) allow both organic and 'made with organic' in the global marketplace. Under OASIS, 'made with organic' starts at 70% minimum organic content, while organic requires 85%, but the requirement will increase to 90% in 2010 and 95% in 2012.<sup>[14]</sup>

### Product and ingredient trends Nutricosmetics -

Nutricosmetics is a word for nutritional cosmetics that refers to "eating and drinking goods in conjunction with your regular skin care routine for better overall outcomes." Glowelle, Borba, and Perricone are among the companies that have tapped into this trend with new ingestibles that promise cosmetic results. 'Beauty-from-Within' cosmeceuticals are becoming increasingly popular in the anti-aging market niche. These orally consumed functional drugs promote youth by targeting and reversing particular physiological processes linked to ageing, such as cell and tissue irreversible disintegration. To achieve the desired benefits, several nutricosmetics

include vitamins, phytonutrients, and other natural substances. Vitamins A, C, and E, as well as fatty acids like alpha-lipoic acid and botanicals like green tea, are antioxidants found in nutricosmetics and oral anti-aging therapies. Superior products also contain chemicals that enhance skin health, work as an anti-inflammatory, and have a stress-relieving component. Europe saw the greatest increase in new cosmeceutical food and drink product introductions between 2005 and 2007.<sup>[15]</sup>

### Consumer trends Changes in the Gender Divide:

Men's cosmeceutical products are beginning to gain traction, but they still have a long way to go before they can compete with those for women. The men's cosmeceutical line, according to a report published by the Natural Marketing Institute (NMI) in 2007, is the fastest expanding market today. Women's desire to look attractive and preserve youthful, healthy skin is no longer exclusive. The first significant wave of men's skin care products hit the market in the mid-1990s, and sales have steadily increased to \$6 billion in 2008. Men are no longer ashamed of shopping for creams or admitting their wish to seem youthful. Vitamins, phytochemicals, acids, anti-oxidants, and essential oils are examples of cosmeceutical components that can be used to create anti-aging skincare lines for men.<sup>[16]</sup> Baby cosmeceutical products, which include sunscreens and specific actives, are aimed at the youngest age range for skin care.

### RESEARCH TRENDS

Anti-aging cosmeceutical concepts in Ayurveda According to Ayurveda, a number of factors determine skin health and youthfulness. These include proper moisture balance (Kapha in balance), effective functioning of the metabolic mechanisms that coordinate all the various chemical and hormonal reactions of the skin (Pitta in balance) and efficient circulation of blood and nutrients to the different layers of the skin (Vata in balance). The health of the following three dhatus (types of body tissue) are especially reflected in the skin: nutritional fluid (Rasa), blood (Rakta) and muscle (Mamsa). Rasa supports all the body tissues, particularly keeping the skin healthy, Rakta, in association with liver function, helps detoxify the skin of toxins, while Mamsa provides firmness to the skin. An effective Ayurvedic anti-aging cosmeceutical should provide support to all these three areas. Anti-aging treatment includes two types of therapies Urjaskara (promotive) and Vyadhihara (curative).

For vata skin to stay youthful, skin care products that can nourish and rehydrate the skin should be used, otherwise it may be susceptible to wrinkles and premature aging. Warm oil self-massage and all natural moisturizers may help.

For pitta skin, good sunscreens for protection from the sun, and good facial skin oils should be used daily. Tanning treatments and therapies that expose delicate

sensitive skin for extended periods of time to steam/heat should be avoided.

For kapha skin, a daily warm oil massage and cleansing of skin with gentle exfoliate should be performed.<sup>[17]</sup>

### Anti-Aging Properties of Ayurvedic Cosmeceutical Ingredients<sup>[18]</sup>

**1. Age defying activity (Vayasthapana)** – The ingredient that nourishes the skin and ensures its optimum physiological functions and has an overall anti-aging property is called vayasthapana, which literally means ‘maintaining youthfulness’ or ‘arresting age’. Vayasthapana herbs give overall support to the skin by keeping all three doshas in balance. Centella asiatica (Gotu-Kola) is the foremost vayasthapana herb with anti-aging effects; one of its many properties is to enhance collagen synthesis.

**2. Youthful Radiance (Varnya)** – An important group of herbs called Varnya, has the ability to enhance the radiance or bright complexion of the skin. If the skin does not have a healthy glow, or varnya quality, then it is not considered youthful in Ayurveda. Varnya herbs include sandalwood, vetiver, Indian madder and Indian sarsaparilla and so on.

**3. Protection from normal wear and tear (Sandhaniya)** – Sandhaniya herbs help coalesce discontinued tissue, and in healing and regenerative functions of the skin, repairing effects of aging. ‘Sensitive Plant’ enhances healing and regeneration of the nerves by 30 to 40%.

**4. Deep healing (Vranaropana)** – Vranaropana herbs enhance deeper healing abilities in the skin. Vranaropana herbs include Gotu Kola and sensitive plant, and are known for their ability to heal wounds.

**5. Enhancing and nurturing (Tvachya)** – These herbs support moisture balance and provide overall nourishment to the skin. Gotu Kola, Silk Cotton Tree, Costus and Rose Petal are the most widely used. Grapefruit extract and natural sources of Vitamins A, C and E nourish the skin and enhance the value of herbs. Feeding the skin properly is very important to prevent it aging.

**6. Anti-inflammatory (Shothahara)** – By protecting the skin against allergens, inflammatory substances, chemicals and even stress, this group of herbs provide the anti-inflammatory effect, essential to all anti-aging formulations. Many factors in the external environment can cause inflammation or breakouts. Inflammation is considered a prime cause of aging; an inflamed site forms a micro-scar that over time develops into a wrinkle or blemish. Inflammatory mediators such as leukotrienes and prostaglandins, cytokines and growth factors target skin texture, integrity and tone. Containing inflammation at its root is therefore an effective anti-aging strategy.<sup>[19]</sup>

And while one can protect every other part of the skin by covering it with clothing, facial skin is always exposed. Rose petal, Silk Cotton Tree and Aloe Vera are Shothahara herbs with appropriate anti-inflammatory properties. Gum resin exudates of *Boswellia serrata* have been used in the Ayurvedic system of medicine in the management of several inflammatory conditions.

**7. Strengthening the skin’s metabolic mechanisms (Tvachagnivardhani)** – This means literally to enhance the luster of the skin by enhancing the skin’s metabolism.

As one ages, metabolism generally slows down; similarly, skin metabolism also weakens. If enzymes become imbalanced, metabolic toxins are created, ama. Ama in the skin clogs the channels, leading to wrinkles, dryness and other signs of aging. Clogged channels also create dullness and lack of youthful glow. Application of *Centella asiatica* enhances enzyme principles; topically, it improves circulation early. Also, by removing ama and deep impurities, it helps prevent varicose veins, cellulitis, aging skin, and weakened immunity to allergens and skin diseases.

**8. Maintaining skin health and retarding aging (Tvagrasayana)** – In Ayurveda the concept of anti-aging is embodied in rasayana. Tvagrasayana means literally ‘skin rasayana’, which refers to refined and powerful herbal formulae designed to prevent sickness and aging of the skin.

*Phyllanthus emblica* (amalaki), a potent antioxidant, rich in Vitamin C, tannins and gallic acid, is foremost amongst the anti-aging drugs (vayasthapana) or best amongst the rejuvenating herbs; it has properties like rasayana (adaptogenic), ajara (usefulness in aging), ayushprada (prolongs cell life), sandhaniya (improves cell migration and cell binding) and kantikara (improves complexion).

In 2008, Mintel picked up 46 haircare, 45 skincare, 8 colour cosmetics and 2 soap/bath launches containing amalaki.<sup>[20]</sup> Thus we can see that use of amalaki is widespread in the cosmeceutical industry.

### CONCLUSIONS

The ageing process is a difficult human experience that everyone goes through, and the desire to look young is strong in the majority of people. Anti-aging cosmeceuticals are being combined with ancient Indian medicine – Ayurveda – to create a new arena of possibilities in the beauty, health, and wellness industries. Ayurveda provides a wealth of information on anti-aging principles, skin care, and anti-aging herbs, which aids in the development of novel anti-aging cosmeceuticals using natural substances for topical applications. Ayurvedic expertise has been employed by a number of cosmetic businesses to generate anti-aging cosmeceuticals. Beauty-from-within functional

cosmetics that provide multifunctional advantages in the areas of anti-oxidant cellular protection and skin health, as well as anti-inflammatory and anti-stress qualities, have a promising future. They will have a large market in the anti-aging cosmeceutical sector because they are backed by strong science and have verified structure and function. This review may aid the cosmetic and personal care industry, marketers, and modern scientists in comprehending several trends that could be useful in anti-aging cosmeceutical approaches to delaying, defying, and avoiding skin ageing.

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