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Beat the Aging Blues – A Review

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Abstract

From the very ancient time, mankind has already been interested in preventing and keeping ourselves young as long as possible. The term aging is a universal biological process that leads to progressive and deleterious changes in organisms. In present scenario, the meaning of anti-aging has been changed from simply prolonging lifespan to increasing health span, which emphasizes more on the quality of life no matters how long is the life span. Telomeres which are the part of chromosome play an important role in terms of aging as they are having repetitive DNA sequences. Resveratrol, an important antioxidant polyphenol extracted from red wine, has been the subjected to an interest as they are having a range of unique anti-aging properties. This review pulls together and analyse the efficacy and therapeutic value of some Siddha herbals such as *Aloe barbadensis*, *Glycyrrhiza glabra*, *Boerhavia diffusa*, *Coriandrum sativum*, *Solanum lycopersicum*, *Curcuma longa* etc., in the control of the ageing process which occurs in skin.

Keywords: Anti-aging, Antioxidants , Siddha , Herbs, Rejuvenators.

Introduction

Aging is a common process of human beings in which there is inability in maintenance of homeostasis and risk of dying increases. After the age of 20 its symptoms appears as the collagen content per unit area starts decreasing, there is 1% decrease in collagen content per unit area of the skin every year. It is divided into two types, intrinsic and extrinsic aging. The intrinsic aging is associated with genetics whereas extrinsic aging is caused by external factors such as sun exposure, smoking, diet, lifestyle etc. Aging occurs due to sun exposure is known as Photoaging various signs of photoaged skin are deep wrinkles, rough and dry skin, dark and light patches and loss of skin's elasticity. However, we can protect ourselves from photoaging with the help of following agents like ozone, water, skin thickness, melanin, cosmetics, fabrics. During aging there is imbalance between collagen production and degradation, its production decreases whereas level of collagen degrading enzymes increases.

Anti aging Herbals

In Siddha literatures, there are so many herbals indicated as a valuable drug with Antiaging properties. Here are some herbals which slows down the aging process are going to be discussed with their research findings.

Aloe barbadensis

Popularly known as *Katralai (Aloe vera)*. *Aloe vera* possesses many pharmacological activities such as antioxidant, antimicrobial, anticancer, antidiabetic, immune stimulating agent, smooth functioning of gastrointestinal tract and wound healing. It is commonly used for treating acne, wrinkles, dark or white patches and stretch marks. In the treatment of aging and wrinkles the constituents of *Aloe vera* such as aloin A and B have shown the property to inhibit the activity of collagenase, the enzyme which causes degradation of collagen fibres and it also inhibits the expression of matrix metalloproteinases (MMPs) [1] In

Siddha Literatures, this plant is used externally as well as internally, usually taken as a health drink.

Glycyrrhiza glabra

Glycyrrhiza glabra commonly known as *Adhimadhuram* in Siddha. While examined for antiaging effect, the extract at the dose of 150mg/kg/day given to healthy male mice. At the end of the experiment the total antioxidant power of *G. glabra* has been proved and helps in recovery of changes that occurred during aging such as wrinkles, fine lines, loss of elasticity etc^[2].

Boerhavia diffusa

According to Siddha, It is a plant used for Rejuvenation. The leaves have various nutritive components like Vitamin C, Sodium and Calcium. This plant is also effective in the treatment of abdominal tumours and cancers. It is antioxidant in nature and possess antiaging property^[3].

Coriandrum sativum

Exposure to UV radiations causes damage to the skin which leads to degradation of extracellular matrix of dermis. Coriander leaves show antiwrinkle and antiaging effect, the main constituent of coriander leaf is linolenic acid which increases collagen synthesis in normal human dermal fibroblasts (NHDF) and also decreases the expressions of matrix metalloproteinases^[4].

Solanum lycopersicum

Tomato is rich in lycopene, a widely studied powerful antioxidant with strong reducing ability helps in maintaining good skin texture and also prevents erythema caused by UV radiation on the skin which reduces the chances of Aging and also has Anti-Wrinkle properties^[5].

Curcuma longa

As per Siddha Literatures, Turmeric is used externally for Acne, Glowing Skin and other skin related Problems.^[6] Turmeric and its main constituent curcumin have been shown to have cytoprotective effects through its hormetic anti-ageing action in stimulating the synthesis of heat-shock proteins^[7].

Rubia cordifolia

Often known as Indian madder. The components present in Manjistha are reported to impart beneficial effects in treating skin conditions like uneven pigmentation, hyper pigmentation, allergies, eczema and sunburn. Manjistha purifies the blood it is useful in

blood originating diseases. It improves complexion of skin and prevents wrinkles^[8].

Terminalia arjuna

Aging occurs due to decrease in the collagen production. Collagen synthesis and epidermal barrier function is improved by pentacyclotriterpenoids found in *Terminalia arjuna*^[9]. It also increases skin moisturization and decrease scaliness. As per Siddha texts, *Marudhampattai* is highly used in blood pressure management and Cardio Protection.

Withania somnifera

Commonly referred as Indian Ginseng. *Ashwagandha* is reported to have anti-infective, antitumor, anti-stress, antioxidant, mind-boosting, rejuvenating and anti-ageing properties^[10]. According to Siddha, It is mainly used for rejuvenation and accepted to increase longevity and vitality.

Sesamum indicum

In Siddha System of Medicine, Sesame has been used as a healing ingredient for thousands of years. It has potent antioxidant and antiaging activity^[11]. In the tissues beneath the skin, sesame seeds will neutralize free oxygen radicals. It is rich source of vitamin E. Sesamol, Sesamin is reported to restore moisture to the skin, keeping it soft and flexible.

Phyllanthus emblica

In Siddha Medicine, Gooseberry is used as an antioxidant which boosts Immune System. Gooseberry contains high amount of ascorbic acid (VitaminC). It also contains mixture of polyphenols such as Phyllembin, flavonoids, Kaempferol. They effectively inhibit peroxide free radical production. Hence shows protective action against U.V radiation penetration^[12].

Curcumis sativum

Cucumber is very good for skin. It is used in cosmetics as a main ingredient to treat skin wrinkles and sunburn. It has a potential to maintain the elasticity of skin and prevents wrinkling and aging^[13]. It moistures skin and gives skin lightening effect.

Citrus sinensis

Oranges are a rich source of vitamin C. It has property to inhibit the expression of metalloproteinase, hence prevents aging and wrinkles which appear due to the depletion of collagen fibres and appearance of matrix metalloproteinase^[13]

Camellia oleifera

Popularly known as Green tea, a major herb used for weight loss. It acts as an antioxidant and skin rejuvenator owing to presence of polyphenolic compounds—catechins and epicatechins. It has been shown to inhibit genes that drive breast cancer and also to reduce the risk of cardiovascular disease. There are a number of reports on skin photoprotection by poly-phenolic antioxidants of green tea which prevents aging^[14]

Nardostachys jatamansi

Sadamanjil as per Siddha texts is a very important herb regarding its skin care properties. It triggers fibroblasts to increase the synthesis of collagen and elastin fibres^[15]. Due to which skin elasticity increases and Aging (wrinkles formation) decreases.

And also some herbals such as *Tamarindus indica*, *Haberlea rhodopensis*, *Pinus densiflora*, *Triticum aestivum*, *Crocus sativus*, *Astragalus membranaceus*, *Aureobasidium pullulans*, *Rosmarinus officinalis*, *Piper betel*, *Cinnamom umzeyla-nicum*, *Bacopa monnieri* are indicated as an effective in the management of aging process. These plants and their active constituents show antiaging properties and increases the longevity.

Conclusion

In the present scenario of the world, there are great number of plant extracts can diminish UVB-induced photo damage by decreasing activity of enzymes involved in tissue degradation. Numerous plants and plants extracts can attenuate degradation of skin matrix. Some plants have the ability to promote synthesis of collagen. Some plants can inhibit Hyaluronidase, Elastase, Collagenase, and MMP. Some plants can improve skin firmness and elasticity, mainly due to phytoestrogens and saponosides^[16]. This research results in the discovery

of many herbs which were used traditionally to slow down the aging process. Many scientific researches and pharmacological studies related with the above supports antiaging and antiwrinkle properties. This article might be helpful in evaluating more in Siddha system of medicine on the ingredient concentration of the herbal products, their formulation, safety, and the duration of the anti-ageing effect.

References

1. Pankaj Sahu K. Therapeutic and medicinal uses of *Aloe vera*: A review. Journal of Pharmacology and Pharmacy. 2013; 2:599-610.
2. Monica Damle. *Glycyrrhiza glabra* (Licorice)-A potent medicinal herb. International Journal of Herbal Medicine. 2014; 2(2):132-136.
3. Kuldeep Rajpoot RN. Mishra. *Boerhavia diffusa* roots- A review as antiaging. International Journal of Research in Pharmaceutical and Biomedical Sciences. 2011; 2(4):1450-1460.
4. Robin Mitra. Medicinal plants of Indonesia. Asia Pacific Biotech News 2007; 11:727-735.
5. SA. Paica and RM. Russell, Beta-carotene and other carotenoids as antioxidants, J AM Coll Nutr, 18, 426 (1999).
6. Vaidyarathnam Dr. K.S .Murugesamudhaliar, mooligai –*Gunapadam*
7. Gisele Mara Silva Gonçalves Use of *Curcuma longa* in cosmetics: extraction of curcuminoid pigments, development of formulations, and in vitro skin permeation studies.
8. Archana M, Patil S. Evaluation of Antioxidant and Antiacne property of *Rubia cordifolia*. Der Pharmacia Simica 2010; 1(3): 59- 63.
9. Caroline Mathen. Evaluation of anti-elastase and antioxidant activity in antiaging formulations containing Terminalia extracts. International Journal of Herbal Medicines. 2014; 2(2):95-99.
10. Devi, P.U. (1996) *Withania somnifera* Dunal (Aswagandha): potential plant source of a promising drug for cancer chemotherapy and radiosensitization. Ind. J. Exp. Biol. 34, 927–932
11. Pandey S, Meshya N, Viral D. Herbs Play an Important Role in the Field of Cosmetics. International Journal of Pharm Tech Research. 2010; 1(1): 632-639.
12. Pulok Mukherjee K. Bioactive compounds from natural resources against skin ageing. Journal of Phytomedicine. 2011; 19:64-70.
13. Lanny Parengkuan. Anti-glycation activity of various fruits. Anti-Ageing Medicine 2013; 920:70-75.
14. Ahmad, N. et al. (2001) Cutaneous photochemoprotection by green tea: a brief review. Skin Pharmacol. Appl. Skin Physiol. 14, 69–76.

15. Abhay Prakash Mishra. Formulation and evaluation of herbal antioxidant for cream of *Nardostachys jatamansi* collected from Indian Himalayan Region. Asian Pacific Journal of Tropical medicine. 2014; 4(2):679-685.
16. R. Serri and M. Iorizzo, "Combating aging skin," Clinics in Dermatology, vol. 26, no. 2, p. 105, 2008

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