

Skin and Skin care in Ayurveda

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Abstract: In order to understand any skin disease. (twacharoga) a detailed study of the structure and function of skin is necessary. The conceptual aspect of skin needs to be understood because skin disorder is outer exhibition of some kind of internal pathology.

No satisfactory results have been made till date in the aspect of curing skin disease (twacharoga). The ancient science of life Ayurveda provides valuable information regarding various herbs which are useful in curing various skin ailments.

Key words: Skin, twacha structure ,disease herbal, drugs

I. Introduction

The knowledge about the structure (Sharirrachana) and function (Sharirkriya) of skin is important as skin is the most important factor involved in the pathogenesis of any of any disease skin (twacha) is the seat for various skin diseases (twacharogas) skin is one of the most important body part and sensory organ. Likewise a thorough knowledge of various herbal drugs is essential which help in curing many types of skin ailments. The healthy skin has a undergo and face many challenges hence to combat and confront these, challenges, Ayurveda plays a crucial role in the treatment of such skin diseases.

II. Need of Topic

Many scholars from around the world are working a skin diseases (twacharogas) and are trying to find new solutions for treatment approaching at it. Almost every other day new solutions are offered but this has shown unsatisfactory results till date. Hence a thorough study of Ayurvedic herbal drugs is necessitated which will help in curing various skin ailments.

III. Aim And Objective

Aim :- To study the structure of skin and use of herbal drugs in skin diseases

Objectives :-

- 1) To study the various challenges faced by the healthy skin.
- 2) To study various skin diseases and herbal drugs helping in their cure.
- 3) To do a detailedliteraryreview about related topics.

IV. Material And Methods

Review work done and various literature has been collected from the classical Ayurveda texts (samhitas) and research websites.

Ayurvedic Concept Of Skin

According to Ayurveda, twacha (skin) is a seat of sparshanendriya. It is a dnyanendriya i.e. sense organ. It is desorbed as a matrujaavayav (organ derived from mother's genetics)

- 1) The development of skin occurs in third month of intrauterine life.
- 2) The formation of skin results from heat generated in the process of union of sperm (Shukra) and ovum (shonita) and formation of other body elements (dhatus) in foetal body.
- 3) The layers of skin according to Ayurveda are -3
 - 1) Avabhasini 2) lohita 3) Shweta 4) Tamra 5) Vedini 6) Rohini 7) Mamsadhara.According to Ayurveda, twacha means skin which is related to wind element (Vatadosha). It does the function of sense of touch carried out through the skin by wind element (Vatadosha)
- 4) Bhrajaka pitta situated in skin gives colour to skin
- 5) Presence of sweat (sweda) is essential for maintaining the health of skin ⁶
Likely correlation between layers of skin and twachasharier (skin layers according to ayurveda)

Epidermis :-

- 1) Horne layer –Avabhasini
- 2) stratum lucidum – Lohita
- 3) Stratum granulosum – Shweta

Dermis

- 4) Malphagian layer- Tamra
 - 5) Papillary Layer – Vedini
 - 6) Reticular layer – Rohini
- Subcutaneous tissue and muscles mamsadhara (sthula)

Skin structure :-

Skin does the dual work as a barrier between the outside environment and our body^{7,8} The layers of the skin are epidermis and dermis.^{8,9}

Epidermis :-

The epidermis is the outermost layer, having a thickness of 0.1 to 0.6 mm as per its location on our body.⁹ 90-95% of cells in the epidermis are keratinocytes.⁸ The bottom most layer of epidermis has a layer of undifferentiated keratinocytes which are in contact to the dermis. These row of cells divide constantly and thereby producing new cells^{8,9} outermost layer of skin is stratum corneum which is similar to brick and mortar.^{7,8}

Dermis :-

Inner layer of skin between epidermis and other layer of tissue fat muscle, etc. Thickness is 0.3 to 0.4 mm.^{9,10} Blood vessels supplying nutrients to all skin layers are in dermis.⁸ Extracellular proteins immune cells, reside in dermis.⁸

• **Challenges confronted by a healthy skin :-**

A balanced diet is essential for a healthy skin. A flawless skin has aesthetic properties. Our skin is confronted daily with multiple challenges like

- A) **Exposure to UV light:-** This damages the cells of the skin¹¹ Excess exposure to U.V. light causes permanent damage also called as photo damage.^{11,12,13} Acute photodamage is called as sunburn which produces erythema (13) skin laxity, wrinkling, impaired wound healing are some of the side effects of prolonged U.V. exposure.^{13,14,15}
- B) **Dryness of skin:-** The extracellular water content declines as cells migrate towards outer skin.^{16,17} TEWL (Transepidermal water loss) is used to determine skin dysfunction. Hence (NMF) natural moisturizing factor is needed to retain moisture content.¹⁶ Dry skin may be caused after prolonged washing with detergents,¹⁶ lack of fatty acids etc.¹⁸
- C) **Wrinkles :-** Accentuated by loss of blood vessels in dermis¹⁹Photodamage increases wrinkles.²⁰ Role of nutritional factors in wrinkling of skin are not transparent.²¹
- D) **Wound healing :-** After injury, macrophages and neutrophils and neutrophils are necessary to remodel tissue at wound skin.²² Re-epithelialization process occurs and restores the skin. Wound repair is never perfect and hence tensile strength of healed injury is less than uninjured skin.
- E) **Skin ageing :-**Intrinsic ageing is difficult to distinguish from other effects.²³ Ridges on the interface between two layers are diminished, hence preventing dermis from providing adequate mechanical support to the dermis.²³ Aged skin keratinocytes are relatively slow to differentiate and shed. Hence altering their ability to maintain stratum corneum. These lead to an overall dull skin appearance and loss of protective ability of skin.

• **Herbal drugs as a solution in skin problems :-**

India has a rich source for cultural traditional herbs various skin ailments can be treated with the help of herbs. Almost all parts of the herbs are used to cure skin disorders. Castor oil is used as a solvent for oil soluble substances. It is useful in sunburn, age spots etc.²⁵

Hemp (*cannabis sativa*) is useful as an anti-inflammatory agent as it helps in improving sun-damaged skin and prevents ageing of skin. It has a good effect on dry and rough skin.²⁶ Mango (*Mangifera indica*) is used in dryness after excess exposure to sun. Mango butter reduces degeneration of skin cells and restores elasticity.²⁷ Aloe (*Aloe vera*) aloe gel accelerates the process of wound healing and helps in skin burns. It is effective against U.V. radiation.²⁸ Onion (*Allium cepa*) renews and softens the skin. It helps in formation of scar tissue on wounds. Fruit acids such as citric, gluconic, gluconolactone, glycolic, malic and tartaric acids used topically have demonstrated same effectiveness in treating acne because of their exfoliative properties. In one study, gluconolactone was found to be as effective in cleaning inflamed and non-inflamed acne lesions as 5% Benzoyl peroxide and more effective than placebo.²⁹

Garlic (*Allium sativum*) containing ajoene, which has shown to exhibit antifungal activity. In a study of 34 patients treated topically with 0.4% ajoene cream once a day for tinea pedis, 79% noted clearing within 7 days and the remainder reported clearing within 14 days. In the 3-4 month follow-up, all participants remained free of fungus.³⁰ Camphor is derived from the camphor tree (*Cinnamomum camphora*). Camphor and its distillate of the wood.³³ It is toxic in large doses. It can be used as an anti-pruritic in lotions at one-half percent. Honey has been used topically in healing of wounds, burns, decubitus ulcers.³¹ It also has antifungal and anti-bacterial property.³² Curcumin the active compound of turmeric is a polyphenol, having anti-inflammatory activity.²⁶ Extract of *Azadirachta indica* (Meliaceae family) is useful as antifungal, anti-inflammatory. Kustha (*Sassafras*) are made into paste and applied externally to remove pimples, black spots and patches on the face. Bark or milky sap of *Bala* (*Cidacorditola*) *Atibala* (*Abutilon indicum*) *Madhuka* (*Glycyrrhiza glabra*) can be applied when patches on face. In dark patches on face *Bhargapatra* (*cannabis sativa*), *Masur* (*Lens culinaris*) shows good results in dark patches.

V. Conclusion

Skin is one of the important presentable organ of the body. It has a definite role in one's personality. Hence skin diseases (twacharogas) affect not only on somatic level but also on a psychological level. Hence to get a proper idea of skin disease, one must know the normal skin texture. Hence a normal healthy skin is necessary in a healthy individual in order to combat the various challenges faced by a healthy skin.

Here, ayurvedic herbs and herbal drugs play a key role in curing various skin ailments. Ayurvedic herbs have shown to prove effective in treating skin diseases. Large number of herbs have been formulated into cosmetic products and these pure natural cosmetics are without any synthetic chemical. They are devoid of side effects and equally effective in comparison to their modern counterparts. The use of bioactive ingredients in cosmetics influence biological functions of skin and provides nutrients necessary for the healthy skin.

VI. Scope for further study

A detailed analysis of the skin structure and its physiology is necessary at a macro and microscopic level for an in-depth knowledge of various skin diseases thereby proving helpful in understanding its pathology. Hence proving fruitful to the doctors for drug selection. There is a room for improvement in research in the area of role of herbal drugs in curing skin ailments. Although many herbs have shown efficacy in curing skin ailments a detailed analysis at individual herb and its databasing is the need of the hour.

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