Twak Sharir and Correlation with Skin Diseases: An Ayurveda Review

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ABSTRACT
The body composes of many organs and sensory organs (Dnyanendrias) are important one which receives knowledge and sensation through their Adhisthanas. The important sense organs are Twak, Jivha, Nasa, Akshi and Karna. Twak receive sensation through Sparsh, Jivha receive through Rasa while Gandha works for Nasa. Twacha (skin) is one of the important sense organ amongst the five sensory organs, Twacha receive sensation through sense, covers body, associated with Swedvahi strotas, Loma and Lomkupas. Twacha is considered largest organ that forms about 20% of total body mass. Twak receive sense through Adhisthanas gives anticipated response of touch. There are many diseases which manifested through skin such as; acne, leprosy, psoriasis, hyper pigmentation, vitiligo and allergy, etc. The anatomical perspective on skin is very important to understand and treat diseases related to the skin. Present article explores anatomical view on skin and diseases manifested through skin.

KEYWORDS: Ayurveda, Skin, Twak, Anatomy, Sense.

INTRODUCTION
Ayurveda Samhitas described Twak (Twacha) as protective layer of body that present outermost to the body. It is considered as largest sensory organ of body. Acharya described layers and specific functions of each layers of skin. Ayurveda also mentioned particular diseases related to the different layers of skin. Similarly modern health science elaborated division of cell and their role in body.¹⁻⁴ Skin mainly consisted of seven layers and abnormalities in these skin layers may leads some pathological conditions as depicted in Figure 1.

Figure 1: Diseases related to the skin.

Role of Twachā/Twacha (Skin) in body
- Receive touch sensation and perceives accordingly
- Covers whole body
- Protect from the external shock
- Maintain thermostat of body
- Regulates circulatory process of body through Swedvahi strotas
- Skin provides nourishment to the hair
- Facilitate detoxification process
- Provides rigidity and integrity of body parts.
Skin and Mahabhuta

- Twacha is predominant to the Vayu mahabhut
- Twacha is Upadhatu of Mansa and protects inner organs of the body.
- Glow & color of skin related to the Tejansh.
- Lomkapas is associated with Akashans.
- Opening of sweat glands also related to the Akashans.

Twacha & Tridosha

- Sparsh is associated with Vyan Vayu.
- Bhrajjak pitta governs luster and color.
- Darkness of skin can be correlated to the excess aggravation of Vayu.
- Yellowness of skin resembles excess of Pitta Dosha.
- Whiteness of skin represents excess Kapha Dosha.

Skin & Mala

Skin is related to the Sweda (sweat), the excretion of Sweda facilitates by Twacha, and this process helps to maintain body temperature.

Structural view of skin

Skin covers body and provides rigidity, the mucous membrane formed by the skin. The thickest parts of skin are palms and soles of feet with 1.5 mm thickness. The thinnest skin part is eyelids skin about 0.05 mm thickness.

Skin contains various elements such as; melanoid, carotene, melanin and haemoglobin, etc. The pigments of skin present in various layers of skin and manifested accordingly. Formation of Twacha takes places during “Garbhanirmitai” at the time of development of Garbha. The quality of Shukra & Shonita affects quality of skin since these two elements helps in Garbhanirmana.

Skin layers

First and outermost layer of skin (thickness 1/18th of Vrihi) is considered as Avabhasini. This skin layer associated with complexion, helps to holds Udakdhatu, maintain Aradrata bhava and carries Udaka dhatu.

The second layer considers as Lohita (thickness 1/16th of Vrihi), this layer resides beneath the Avabhasini and composed by cells below the stratum corneum. This layer prevents outflow of Rakta dhatu thus helps to holds blood.

Third layer mentioned as Shweta, it is Shweta varniya in appearance with thickness of 1/12th of Vrihi. This layer lies below to the Lohita and composed by different layers of granular cell.

Fourth layer of skin described as Tamra (thickness 1/8th of Vrihi), it lies just beneath Shweta and may be correlated with Stratum Malphigi. Cessation of melanin in pathological condition like leucoderma occurs with Stratum Malphighi.

Fifth layer of skin described as Vedini (thickness 1/5th of Vrihi), this layer is very sensitive to the touch, heat and cold perceptions. This skin layer consisted of corpuscles and nerve endings which help to performs functions of sensation and perception.

The sixth layer of skin described as Rohini, (thickness is equal to one Vrihi), and it lies beneath the Vedini. This layer can be correlated with reticular layer of dermis. Any injury to this layer may cause symptoms of Tama Pravesha. This layer contributed significantly in Vrana Ropana process since it facilitate granulation process which support wound healing.

Seventh layer of skin described as Mansadhara (thickness is equal to the two Vrihi). The existence of this layer is controversial since some ayurveda literatures deny presence of this layer. [1-3]

Skin layers and related pathological conditions

- Skin Layers - Related Diseases
  - Epithelial layer - Sidhma and Padmakantak
  - Stratum Lucida - Tikalak, Nyachchha and Vyang
  - Stratum granuloma - Ajagaliika and Sharma dala
  - Malphigian layer - Kilas and Kushta
  - Papillary layer - Kushta and Visarp
  - Reticular layer - Apachi, Shlipad, Galganda and Arbud
  - Subcutaneous layer- Vidradhi, Arsh and Bhagandar

Twacha is generally considered Vata & Pitta predominant; the Kshaya & Vridhi in these Doshas leads some pathological conditions. Vata-Vriddi causes hyper pigmentation of skin while Pitta Vriddi causes discoloration of skin. Loss of glory is associated with Pitta Kshaya, while Kapha Vriddi is associated with whiteness of skin. Kapha Kshaya is related to the dryness of skin and burning sensation also associated with Kapha disturbance.

CONCLUSION

Ayurveda as well as modern texts of medical science mentioned almost similar components of skin. Skin protects internal organs of body, resist shock and injury, provides colour and skin is responsible for the pigmentation of body. Skin is outermost organ of body, consisted of many layers, these different layers of skin performs specific functions. The thickness of skin layers differs from each other and particular pathology observed if any skin layer get affected by abnormalities of Doshas and Dhatus. Drugs such as Amaltas, Anjeer, Erandakarkati, Eranda, Kampilak, Kapoor, Palasha, Nagkesar, Neem and Tuvaraka, etc. can be used for treating skin disorders.
REFERENCES