A Review article on concept of Twak Sharir in ayurveda w.s.r to Dermatological disorders

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***Abstract*—Twak (skin) is one of the important sensory organs (Dnyanendria) which receive sense/stimuli through Adhisthanas. Twak generates anticipated response against the stimuli like; Sparsh (touch). Twacha (skin) not only helps to understand touch sensation but it also covers whole body, protect from shock and perform functioning of thermostat through sweat channels (swedvahi strotas). The pores present in skin help in the hair nourishment and detoxification process. It is believed that each and every components of skin having anatomical as well as physiological importance. Therefore any anatomical or physiological abnormalities in skin or related organs may leads various disorders with skin manifestation including psoriasis, acne, leprosy, hyper pigmentation, skin allergy and vitiligo. Present article described structural components of skin and their role in disease pathogenesis.**

***Index Terms*—Ayurveda, Dnyanendria, Twak, Skin, Disorders.**

I. INTRODUCTION

Appearance (Swarup) and layers of skin
As per Ayurveda human body is composite structure of Dosha, Dhatu, Updhatu and Mala. Twacha is one of the Gyanendriyas amongst five considered as Updhatu of Mamsa Dhatu. Skin is termed as "Twak" in ayurveda which covers whole body and the disease associated with skin called Twacha Rogas. The skin disorder manifested externally but their route causes existed internally. Twacha related with Doshic compositions and affected by Dhatus, therefore various others diseases also manifested on skin, therefore skin also used as a diagnostic tool for identifying various diseases.

II. STRUCTURAL COMPONENTS OF SKIN (MODERN PERSPECTIVE)

Skin cover external surface of body including auditory meatus & surface of tympanic membrane. It formed mucous membrane at the orifices of the body, the skin of palms and sole of feet considered as thickest (1.5 mm thick) while eyelids skin is considered as thinnest skin (0.05 mm thick). Melanin, melanoid, carotene, haemoglobin & oxy haemoglobin are major pigments of skin which present through various layers of skin.

III. ORIGIN OF TWAK SHARIR

Formation of Twacha occurs during "Garbhanirmati" when formation and development of Garbha take places. Shukra & Shonita along with others elements involved in Garbhanirmana. The metabolization of Shukra & Shonita by Tridosha considered as prime factor for the formation of Twacha.

IV. LAYERS IN TWACHA SHARIR

Ayurveda Samhita described several layers of Twacha and each layers having specific role physiological functioning and any disturbances in these layers initiates pathogenesis of various skin disorders. The various layers of skin found among Atreya and Dhanwantri denomination. The structural descriptions of various skin layers are as follows:

- First layer of skin & its involvement in Twak Roga

The first outermost layer is termed as Avabhasini; thickness 1/18th of Vrihi. This outermost layer considered as Twak Roga Adhisthana of Sidhma and

Padamkantka. This layer considered responsible for complexion, as per Maharishi Charak & Vriddha Vagbhat first layer holds Udakdhatu, carries Udaka dhatu and maintain Aradrata bhava.

- ❖ Second layer of skin & its involvement in Twak Roga

Sushruta described second layer of skin as Lohita which is 1/16th thick of Vrihi and considered as Adhisthana of Twak Roga such as; Tilkalka, Nyacha & Vyanga. As per Ghanekar this layer lies beneath the Avabhasini and composed by transparent layer/cells placed below the stratum corneum. This layer holds blood and prevents outflow of Rakta dhatu.

- ❖ Third layer of skin & its involvement in Twak Roga

Acharya Sushruta mentioned third Twacha stara as Shweta since it is Shweta varniya in appearance, it is 1/12th thick of Vrihi and considered Adhisthana for Twak Roga such as; Ajagalika, Charmadal & Mashak. As per Ghanekar this stara lies just below the Lohita and made up by different layers of granular cell. This layer described as a prime location of Sidhma & Kilas.

- ❖ Fourth layer of skin & its involvement in Twak Roga

Fourth layer of Twacha described as Tamra, having thickness of 1/8th of Vrihi and lies beneath the Shweta. It is considered Adhisthana for Twak Roga such as; Kustha and Kilas. Sharangdhara and Bhavprakasha described this layer as site for Kilas Shivtra. Ghanekar mentioned that fourth layer may be correlated with Stratum Malphigi. The fourth layer of skin involve in etiopathogenesis of leucoderma since cessation of melanin in leucoderma associated with Stratum Malphighi.

- ❖ Fifth layer of skin & its involvement in Twak Roga

The next Stara of Twacha described as Vedini by Sushruth. It is 1/5th thick of Vrihi and sensitive to perceptions of touch, heat and cold. It is considered as Adhisthana of Twak roga such as; Kustha and Visarpa. Similarly Charak & Vagbhat considered this layer of skin responsible for Alaji & Vidradhi. This skin layer performs function of perception of sensation since it consisted of corpuscles and nerve endings.

- ❖ Sixth layer of skin & its involvement in Twak Roga

Sushruta described sixth layer of skin as Rohini, it is equal to one Vrihi in thickness. This layer may be correlated with reticular layer of dermis since it lies beneath the Vedini (fifth layer). This layer considered Adhisthana of Twak roga like; Granthi, Galganda, Apachi and Arbuda. Injury to this layer may lead Tama Pravesha; darkness in front of eye for short period of time. This layer helps in tissue granulation process thus perform function of wound healing (Vrana Ropana).

- ❖ Seventh layer of skin & its involvement in Twak Roga

The seventh layer of skin described as Mansadhara and it is equal to two Vrihi in thickness. It is considered Adhisthana of Twak Roga such as; Vidradhi, Bhagandara & Arsha. However some ayurveda literature considered only sixth skin layer and denies presence of this seventh layer.

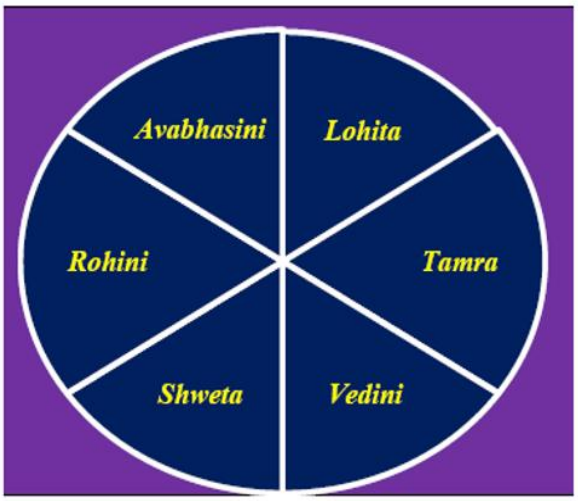
V. CORRELATION BETWEEN SKIN AND DOSHA PREDOMINANCE LAKSHAN

Sparshanendriya i.e. Twacha generally described as site of Vata & Pitta predominance. Therefore Twacha possesses relationship with the Tridoshas and any imbalances (Kshaya & Vriddhi) in Doshas may be seen on Twacha in terms of sign and symptoms as follows:

- ➢ Hyper pigmentation of skin and discoloration of skin may be observed as Vata-Vriddhi Lakshan and Pitta Vriddhi Lakshan respectively.
- ➢ Pitta Kshaya Lakshan involves loss of glory & coldness of skin.
- ➢ Similarly whitish appearance of skin and coldness of skin may be observed as Kapha Vriddhi Lakshan on skin.
- ➢ Dryness of skin and burning sensation may be considered as Kapha Kshaya Lakshan.

Table 1: Modern Concept of Skin Layer and Associated Diseases

S. No.	Skin Layer as per Modern Concept	Diseases involved
1	Epithelial layer	Sidhma, Padmakantak
2	Stratum Lucida	Tilkalak, Nyachchha, Vyang
3	Stratum granuloma	Ajagallika, Charma dala
4	Malphigian layer	Kilas, Kushta
5	Papillary layer	Kushta,Visarp
6	Reticular layer	Apachi, Arbud, Shlipad, Galganda
7	Subcutaneous layer	Bhagandar, Vidradhi, Arsh



VI. DRUGS USEFUL IN SKIN DISEASES

Anjeer, Amaltas, Erandakarkati, Eranda, Tuvaraka, Kampilak, Kapoor, Kalonji, Palasha, Nagkesar and Neem.

VII. CONCLUSION

Classical texts and modern texts of medical science described skin components in similar way however some minor variations may observed related to layers of skin. The traditional text of ayurveda mentioned diseases specific to particular skin layer. Skin not only protects internal organs of body from external stimuli but it's also responsible for colour, complexes and pigmentation of body. This article emphasized that a physician must be aware about involvement of particular skin layer in specific skin disease so that disease cured selectively.

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