

CONCEPTUAL STUDY OF TWAK SHARIR W.S.R. TO PADADARI

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Article Received on 07/09/2020

Article Revised on 28/09/2020

Article Accepted on 18/10/2020

ABSTRACT

Twak (skin) is one of the most important organs (Dyanendriya) which receives 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 performs functioning thermostat through sweat channels (Swedvahi Strotas). The pore present in skin helps in the hair nourishment and detoxification process. It is believed that each and every components of skin having anatomical and physiological importance. Padadari is one of the commonest and most negligible disease. It is observed that people are least bothered about their feet though feet bear the whole body weight. In India 80% of population live in rural area. Most of them work in farms in wet soil and water also. So incidence of cracking the skin of the foot is very common. For management of Padadari knowledge of skin is very important. All of Aacharyas explain briefly about Twak sharir, in this research article we try to focus on Twak Sharir.

KEYWORDS - Twak sharir, Padadari, Crack heel, Skin, Ayurveda.**INTRODUCTION**

Skin reflects the internal health of an individual. Now-a-days skin diseases are very common. Due to various causes e.g. consumption of unhealthy food or lifestyle modification or environmental pollution or due to stress skin problems are increasing day by day and it also affects the quality of life of an individual.

Skin is one of the five 'Gyanindriyas' as described in Ayurvedic texts. It is responsible for 'Sparsh Gyan' or touch sensation; therefore it plays a great role in physical and mental well being of any individual. It is the largest organ of the body which is exposed to external environment. It protects the internal organs from physical, chemical, mechanical and biological injuries.

In Ayurvedic Classics various skin disorders have been described under the heading of Mahakushtha, Kshudrakushtha and Kshudraroga. These topics almost cover the whole dermatology in Ayurveda. Out of this Mahakushtha, Kshudrakushtha were studied on large scale. But other skin diseases e.g. Padadari (Cracked foot), Kadar (Corn / Clavus), Mukhadushika (Acne vulgaris), Khalitya (Alopecia's) Palitya (premature grayness of hair), Vyangya, Kotha, Utkotha (Urticarial diseases) etc. enumerated in Kshudraroga were not studied much.

Padadari is most common prevalent skin disorder of foot

found in day to day life. This is more demoralizing to the patient due to its recurrence and chronicity.

Cracked feet are common foot problems that are often caused by dry skin and made more complicated if the skin around the disease area became thick and tender. They are painful to stand on and the skin can bleed in severe cases. For most people these are also a cosmetic problem. The location of padadari is skin of sole. Though more prevalent this disease were not studied much.

Synonym- Twak, Charma, Sparshan, Sparshanendriya etc.

Formation of Twak (Utpatti)

According to Sushruta and Vagbhata, after Shukra, Shonita Sanyoga, pachyamanawastha occurs and seven layers of Twak are formed like cream over milk. Twak is matruja organ and still it is generated as the sparshanendriya from Atmaja bhava. As per charaka, Twak is also generated during third month as it is Dnyanendriya.

Panch bhautiktwam

Skin (twacha) is one of the five sensory organ (Dnyanendriya) having dominance of Vayu mahabhut and related to touch sensation. It is the derivation (upadhatu) of flesh (Mansa) and covers all body and protects inner organs of body. Skin and hairs are related to Parthivansh, Glow, color are related to tejansh, hair

pits (Lomkupas) and opening of sweat glands are related to Akashansh, Rasa and lymph etc. related to aapyansha.

Relation of Twak and Tridosha

- **Vyan Vayu** - Touch Sensation (Sparsh) and circulation.
- **Bhrajaka pitta** - Lusters and color.

- **Kapha** – while in excess represent whiteness of skin.

Relation with trimala

Sweat (Sweda) among excreted by skin which helps to maintain body temperature.

Table 1: Skin type acc. To Acharya Sushrut Sharir 4/4.

No	Name	Characters	Thickness	Disease
1.	Avabhasini	1 st layer	1/18 of Vrihi	It reflects varna and 5 types of Chava, sidhma Padmakantaka
2.	Lohita	2 nd layer	1/16 of Vrihi	Tilkalaka, Nyachcha, Vyanga
3.	Shweta	3 rd layer	1/12 th of vrihi	Charmadala, Ajagallika, Mashaka
4.	Tamra	4 th layer	1/8 th of vrihi	Mahakushtha, Kilasa
5.	Vedini	5 th layer	1/5 th of vrihi	Mahakushtha, Visarpa
6.	Rohini	6 th layer	1 vrihi	Granthi, Apachi, Arbuda, Shlipada and Galaganda
7.	Mansadhara	7 th layer	2 vrihi	Bhagandar, Arsha Vidradhi,

Twak and related Upadhatu

Upadhatu of Rasa, Rakta and Meda are related to Twak. Twak conatins Sira, covers Kandara and Snayu. Twak is the Upadhatu of Mansadhathu.

Twak and Strotas

- **Mamsavaha Strotas:** Twacha is Moolasthan of Mansavaha Strotas. Moolasthan is supposed to govern Utpatti, Vahan and Parinamana of that particular dhatu.
- **Swedvaha strotas:** Swedvaha strotasa is the part and parcel of Twacha. Romkupa are also part of Twacha.
- **Rasavaha Strotas:** It is also related to skin. Due to Rasavaha Strotasa Dushti, hair fall, Wrinkles on the skin occurs, along with other symptoms.
- **Raktavaha Strotas:** similarly Raktavaha strotas dushti produces many skin problems like Kushtha, Visarpa and Pidaka etc.

Twak Sara

Skin of twak sara person is characterized by glossy, smooth, soft, clear, fine, less numerous, deep rooted and tender hairs and such individual is endowed with happiness, good fortunes, power, enjoyment, intellect, knowledge, health, excitement and longevity.

Twak Karma

1. **Varna** – Twak is sthana of Bhrajaka Pitta, so gives luster and Aura to the skin.
2. **Shoshana** – It absorbs the medicine when applied in the forms of abhyanga, Lepa, Upanah etc.
3. **Samvarna** – Twak is Upadhatu of Mamsa. So it protects and covers skeleton and muscles.
4. **Malayana** – Twak is moolasthan of Mamsavaha strotas, so it regulates formation, maintenance and excretion of wastes of the Mamsadhathu. Sweat is excreted through it.
5. **Sparshndnyana** – Twak is site of Vata dosha it acts as an organ of sensation. Twak is Adhishtan of sparshnendriya.

Padadari

Padadari is a disease, described in Ayurveda which occurs due to vitiation of Vata Dosha. Signs and symptoms of Padadari are: Padayo Kuruthe Dari (cracks/fissures in the feet), Saruja (associated with pain) and Ruksha (roughness and dryness of the sole).

Padadari can be correlated with cracked feet or heel fissures. A Cracked foot (especially in the heel region) is a common foot problem for both men and women, caused by dry skin (also known as xerosis). Signs and symptoms of cracked feet are dry, itchy skin, hardness around the rim of the heel and cracks or fissures on the outer edge of the heel. When the fissures are deep they may bleed and become painful. Sometimes they may also get infected. This may cause a great deal of pain and discomfort, thereby hindering the daily activities of the patient. It also affects the appearance and beauty of the feet.

There are several reasons cracked heels can occur. Some of these include Walking barefooted, Walking in open footwear such as thongs or sandals, Standing up for long hours, especially on hard floors, Increased weight, Dehydration, Abnormal walking pattern (orthotics may reduce this), Diabetes, Decreased blood supply to the feet (e.g. Peripheral Vascular Disease– PVD), Psoriasis & Eczema, Some medications (e.g. Diuretics, chemotherapy), Climate changes (e.g. Dry summers or cold winters) etc.

Modern Aspects of the Skin

Epidermis

It is thinnest layer, metabolically active, stratified, Squamous, cornifying epithelium that is populated by 4 types of Cells.

1. **Melanocytes:** (melan – black) which produce the pigment melanin, comprise about 8% of the epidermal cell. Melanin is a brown- black pigment that contributes to skin color and absorbs UV light.
2. **Langerhans cells:** These arise from bone marrow

and migrate to the epidermis. They interact with white blood cells called helper T cells in immune response and are easily damaged by UV radiation.

3. Merkel Cells: These cells are located in the deepest layer. Merkel cells contact with the flattened portion of the ending of a sensory neuron called a tactile disc and is thought to function in the sensation of the touch.
4. Keratinocytes: (ker-a-tin-o-cytes-kerato-horny) about 90% of the epidermal cells are keratinocytes. They produce a protein called keratin. This substance helps in waterproofing and protects the skin and underlying tissues.

The Names of five layers of the epidermis from the deepest to the most superficial are,

- Stratum basale:
- Stratum spinosum (Spinosum-thorn like)
- Stratum Granulosum (Granulum -little grain)
- Stratum Lucidum (lucidus-clear)
- Stratum corneum (corneum-horny)

Dermis

The Dermis mostly of comparatively non cellular connective tissue composed of collagen, elastic fibres and ground substance within which are embedded nerves, blood vessels, lymph vessels, muscle, pilosebaceous apocrine and sweat units. The dermis rests upon a thick pad of subcutaneous fat and is 15-40 times thicker than the epidermis.

The fully formed dermis may be divided into two compartments-

- A thin zone immediately beneath the epidermis 'papillary dermis'.
- A thick zone of reticular dermis which contains irregular arranged coarsen elastic fibre interspersed between thick collagen bundles that are mostly parallel to the skin surface on the face and neck. Striated muscle is also seen in reticular dermis.

DISCUSSION

Though the skin is an independent organ at the same time it is in contact with all the organs and systems of human body the skin communicates with the organisms by means of the nervous system, circulation and endocrine glands.

Classical texts and modern texts have different opinion about skin. But they both describe the layers, pigments and thickness of skin. Moreover classical text describe the disease which occurred in particular layer of skin.

Brain storming deep study has been done in above project. This explains various opinions of classical and modern text as well about skin. Its function, its formation and its structure.

CONCLUSION

Padadari is caused due to Vataprakopa Hetu, Atichankramana and Ruksha Guna. In the initial stage of the disease patient does not have any complaints. But as the disease progresses, it can lead to severe symptoms as acute pain and even bleeding from cracks because of this extra attention on skin of feet is very important.

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