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A REVIEW STUDY OF TWAK SHARIR WITH SPECIAL REFERENCE TO PADADARI

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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. Twak weighs 4.5-5 kg. Its thickness is 0.5- 4mm, depending on location, maturation and ageing. All of Acharyas explain briefly about Twak Sharir, in this research article we try to focus on Twak Sharir.

KEYWORDS: Padadari, Twaka, crack heel,Ayurveda, Dnyanendria, Twak, Skin, Disorders.

INTRODUCTION

It means the skin covers the Shadang Sharir (i.e. head, neck, upper and lower limbs, chest and abdomen). According to Sushruta and Vagbhata, after Shukra Shonita Samyoga, Pachyamanawastha occurs and seven layers of Twak are formed like cream over milk.

Synonym- Twak, Charma, Sparshan, Sparshanendriya etc.

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.

Table No. 1: skin type acc. To Acharya Sushrut Sharir 4/4

No.	Name	Characters	Thikness	Disease
1	Avabhasini	1 st layer	1/18 of vrihi	It reflects varna , 5 layers of chaya sidhama padmakantak.
2	Lohita	2 nd layer	1/16 of vrihi	Tilkalak, nachcha, vyang
3	Shweta	3 rd layer	1/12 of vrihi	Charmadal, ajagalika, mashak
4	Tamra	4 th layer	1/8 of vrihi	Mahakushta, kilas
5	Vedini	5 th layer	1/5 of vrihi	Mahakushta, visarp
6	Rohini	6 th layer	1 vrihi	Granthi, galagand, apachi, arabud shilapad
7	Mansadhara	7 th layer	2 vrihi	Bhagandar, Arsh, vidaradhi

Twak and related Dosha

A) Vata Dosha- Twak is one of the main Sthana of Vata Dosha, which is responsible for sensation of touch, pain, and temperature.

B) Pitta Dosha- According to Vagbhata, Sparshanendriya is one of the Sthana of Pitta. It is also Sthana of Bhrajak Pitta, which gives luster and color to the skin.

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

Twak and related Mala
Twak is the biggest Malayana which contains innumerable Bahirmukha Strotansi. Sweat is important mala which is thrown out by Twak. Excess sweating and bad odour to sweat are the manifestation of Sweda Vridhi.

Twak and Strotas
Mamsavaha Strotas: Twacha is Moolasthana of Mansavaha Strotasa. Moolasthana is supposed to govern Utpatti, Vahan and Parinamana of that particular dhatu.
Swedvaha Strotas: Swedvaha Strotasa is the part and parcel of Twacha. Romakupa 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.

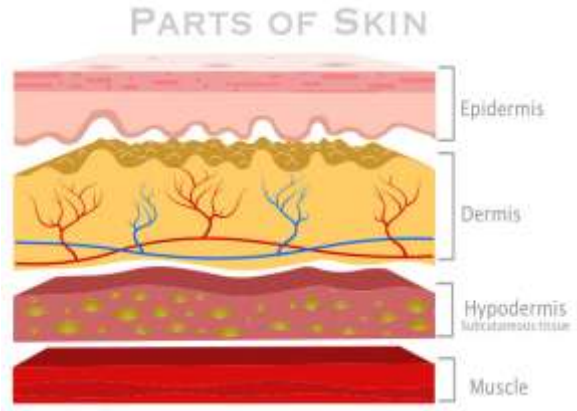
Twak and Dnyanendriya
Twak is adhishthan of Sparshanendriya.

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
Varna- Twak is Sthana of Bhrajak Pitta, so gives luster and aura to the skin.
Shoshana- It absorbs the medicine when applied in the form of abhyanga, Lepa, Upanah etc.
Samvarana- Twak is Upadhatu of Mamsa. So it protects and covers skeleton and muscles.
Malayana- Twak is Moolasthana of Mamsavaha Strotas. So it regulates formation, maintenance and excretion of wastes of the Mamsadhatu. Sweat is excreted through it.
Sparshadnyana-Twak is site of Vata Dosha it acts as an organ of sensation.

Twak is Adhishthan 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 aspect of Skin –

Epidermis
It is the thinnest layer, metabolically active, stratified, squamous, cornifying Epithelium that is populated by 4 types of cells.



- 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.
- Langerhans cells- These arise from bone marrow and migrate to the epidermis. They interact with white blood cells called helper T cells

Keratinocytes: – (Ker-a-tin-o-cytes- ketrato- horny) about 90% of the epidermal cells are keratincytes. 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 (corenum-horny)

Dermis
The dermis mostly of comparatively noncellular connective tissue composed of collagen, elastic fibers and ground substance within which are embedded nerves, blood vessels, lymph vessels, muscles, pilosebaceouse 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 irregularly arranged coarse elastic fibers 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 system of human body the skin communicates with the organism by means of the nervous system, circulation and endocrine glands.

Regulation of the body temperature- In response to high environmental temperature or strenuous exercise the evaporation of sweat from the skin surface helps lower an elevated body temperature to normal. In response to lower environmental temperature production of sweat is decreased which helps to conserve heat. A change in flow of blood to the skin also helps regulate body temperature.

Protection -The skin covers the
Body and provides a physical barrier that protects underlying tissues from physical abrasion, bacterial invasion, dehydration.

Sensation- The skin contains abundant nerve endings and receptors that detect stimuli related to temperature, touch, pressure and pain.

Excretion- Besides removing heat and some water from the body sweat is also a vehicle for loss of a small quantity of ions and several organic compounds.

Immunity – Certain cells of the epidermis are important components of the immune system, finds off foreign invaders

Blood reservoir– The dermis houses extensive networks of blood vessels that carry 8 to 10% of the total blood flow in resting adult. In moderate exercise, skin blood flow may increases, which help dissipate heat from the body. During strenuous exercise, following severe hemorrhage and anxiety, however skin blood vessels constrict somewhat, which allows more of the blood to circulate through contracting muscles.

Synthesis of vitamin D- Synthesis of vitamin D begins with activation of a precursor molecule in the skin by UV rays in sunlight. Enzymes in the liver and kidney then modify molecule, finally producing calcitriol, the most active form of vitamin D. Calcitriol contributes to the homeostasis of the body fluids by aiding absorption of calcium in foods from the digestive tract into the blood. Thus vitamin D is a hormone since it is produced in one location in the body transported by the blood and then exerts its effect in another location. For this reason, the skin Can be considered as an endocrine organ

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

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