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### RESEARCH ARTICLE

#### A CONCEPTUAL REVIEW ARTICLE ON TWAK W.S.R. SKIN

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#### Abstract

In Ayurveda the word Twak or Charma is used for skin. Twak is referred to as due to the fact it's miles that which covers the frame. This also suggests the moves of skin within the shape of pulsatility and responsiveness. Twak is the Updhatu of Mamsa. at some point of the formation of Garbha, differentiation of the layers of the skin takes region and is produced by means of all of the 3 Dosha, particularly through the Pitta Dosha. Charaka described Twacha because the Matruja Bhava (maternal issue) that is one of the six Bhava crucial in the development of foetus. Twak is Upadhatuof Mans Dhatu which paperwork the outer protecting of the frame and protects frame from outside factors such as heat, bloodless and many others. it's far an important organ of the integumentary machine envelops underlying tissues and organs. Ayurveda point out the Twak as Sparshanaindrya. The layers of the Twak has been cited through extraordinary Acharyas, but the know-how of the each layer isn't always so much clear with respect to the layer stated inside the modern technology. Acharya explained the thickness of the Twak layers in as compared with the Vreehi grain and each layer has distinct thickness. concerning the formation of Twak, it was correlated with simile of formation of casein over milk. there may be a want to understand the extraordinary layer of Twak and pores and skin, their structural, useful & developmental interpretation to correlate in among them.

**Aims & Objectives:** To review Twak from various Ayurvedic Samhita. To study and correlate twaksthara with layers of skin.

**Materials and methods:** The literary resources for the existing have a look at was amassed by means of ayurvedic samhitaslike Charaka Samhita, Sushruta Samhita, AstangSangrah, Bhavprakasha & Sharangdhara etc. it will likely be correlated with the contemporary available books, literature, journals, web sites, and studies paper as according to correlate the possible layer of skin and its formation with the layer of the Twak and its formation process on the basis of classical information.

**Conclusion-** The classical description regarding the Pramana of each TwakSthara has lacuna of evidence so, it can be the issue for similarly have a look at and have to be matched with the modern-day descriptions. The layer of the Twak corresponds with the layer of skin within the purposeful and structural element.

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### Introduction:-

In Ayurveda the word Twak or Charma is used for skin. Twak is called because it is that which covers the body. This also indicates the movements of skin in the form of pulsatility and responsiveness. Twak is the Updhatu of Mamsa. Sushruta described the process of formation of Twak in the developing foetus. After fertilization of Shukra&Shonita, Twachadevelopes just as the layer of Santanika(scum) appears in the boiling milk which gradually increase in thickness, in the similar manner the seven layers of the skin are formed over the surface of foetus body. Acharya Charaka mentioned six layers of skin. Only first two layers are named such as Udakadhara&Asrugdhara. Other four layers of skin are mentioned with respect to conditions affecting them. Acharya Sushruta has described seven layers of Twak along with specific names. He mentioned the thickness of each layer along with the conditions affecting those layers. Sharangadhara has mentioned seven layers of twak along with the conditions affecting them. The names of first six layers are same as that of Sushruta but a seventh layer is named as Sthula which is the site of Vidradhi.<sup>1-5</sup>

Twak is the Updhatu of Mamsa.Sushruta described that after fertilization of Shukra, Shonita, Twachadevelopes just as Santanika forms in layers wise and gradually increases in thickness, in the similar way seven layers of the Twak are formed and deposited rapidly in the same manner as the layers of scum are formed and accumulates on the surface of the boiling milk. Vagbhata opinion that the Twak is formed from the Rakta. After the Paaka of Rakta by its Dhatwagni, it gets dried up to form the skin, like the deposition of scum on the surface of boiling milk.<sup>6-8</sup>

Out of two layer of skin, the epidermis is a superficial epithelial tissue that is derived from surface ectoderm & dermis is a deeper layer composed of dense irregularly arranged connective tissue that is derived from mesenchyme. Skin structures vary from one part of the body to another. The embryonic skin at 4 to 5 weeks consists of a single layer of surface ectoderm overlying the mesoderm. During the first and second trimesters of pregnancy there is increment in epidermal thickness. The cells of surface ectoderm proliferate and form a layer of squamous epithelium, the periderm, & basal (germinate) layer. The cells of the periderm continually undergo keratinization and desquamation and are replaced by cells arising from the basal layer. Replacement of peridermal cells continues till 21st week; thereafter, the periderm disappears and the stratum corneum forms. Proliferation of cells in the stratum germinativum also forms epidermal ridges, which extend into the developing dermis. The transformation of the surface ectoderm into a multi-layered epidermis results in formation of different layer of epidermis. Skin is classified as thick or thin based on the thickness of the epidermis.<sup>9</sup>

### Objectives:-

- 1) To review Twak from various Ayurvedic samhita.
- 2) To study and correlate twak with layers of skin.

### Definition-

Acharya Sushruta, Vagbhata, Bhavprakasha&Sharangdhara had mention seven layers of Twak. Whereas in Charaka, Bhela&AstangaSangraha mentioned six layers of Twak.<sup>10,11.</sup>

### Layer of Twak-<sup>12,13,14</sup>

Layers	Charaka	Sushruta	Vagbhata
Prathama	Udakadhara-BahayaTwak	Avabhasini	1st
Dwitiya	Asrugdhara	Lohita	2nd
Tritiya	Sidhma, KilasaSambhavadhishthana	Shweta	3rd
Chaturtha	Alaji, VidradhiSambhavadhishthana	Tamra	4th
Panchami	Dadru, KushtaSambhavadhishthana	Vedini	5th
Shashthi	Rohini	Rohini	6th

Saptami	-	Mamsadhara	7th
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The parameter for thickness is applicable for fleshy area not for bony area like SukshmaAnguli (little finger) and lalaata (forehead). The motive behind describing thickness of each TwakStara is for performing various surgical interventions such as abdominal tapping should be done in Angusta Udara Pramana by Vrihimukha Yantra in Jaludhara.

#### **Skin-<sup>15,16</sup>**

Skin is the largest organs and organ of integumentary system of the body. It covers the entire surface of the body. It is one among the sense organ. The skin is also a reactive dynamic organ that manages to express the feeling and emotions. It is a protective boundary between the person and its environment, hence work as the first line defence of the body. Skin accounts for about 15 percent of body weight, most of it is between 2-3mm thick. Skin and its components are entirely derived from ectoderm and mesoderm. Skin is composed of three layers namely Epidermis, Dermis & Hypoderm (Subcutaneous tissue). The layer and thickness of each layer is tabulated below.

<b>Layer of Skin-</b>	
<b>Epidermis</b>	
Thin skin -4 layers	0.1mm thick
Thick skin -5 layers	1-2mm thick
<b>Dermis</b>	

<b>Sub layers</b>	<b>Thickness</b>
Stratum Corneum	10-30µm
Stratum Lucidum	100 µm
Stratum Granulosum	100 µm
Stratum Spinosum & Basale	100 µm
Papillary layer of dermis	100 - 200 µm

#### **Materials And Methods:-**

The literary resources for the existing have a look at was amassed by means of ayurvedic samhitas like Charaka Samhita, Sushruta Samhita, AstangSangrah, Bhavprakash&Sharangdharaetc. it will likely be correlated with the contemporary available books, literature, journals, web sites, and studies paper as according to examine.

#### **Discussion:-**

##### **Avabhasini-<sup>17</sup>**

Acharya Sushruta called outermost TwachaStara as Avabhasini with thickness about 1/18th of Vreehi and it is adhishtana for Sidhma and Padmakantaka. Dalhana mentioned that first layer is responsible for the exhibition of Gaura, Shyamadi Varna (complexion) and five types of Prabha (glory) and Chaya (shades) of the body with help of Bhrajaka Pitta present in this layer.

##### **Lohita-**

Sushruta named second layer of Twak as Lohita having thickness of 1/16 th of Vreehi. And it is adhishtana of Tilakalaka, Nyaccha&Vyanga. Charaka&VridhaVagbhata called second TwachaStara as Asrugdhara. Indu explains this layer as RudhantvaAsram i.e. it holds the blood and prevents outflow of Rakta dhatu from the body.

##### **Shweta-**

Sushruta called third TwakStara as Shweta, it is having thickness of 1/12th of Vreehi and it is adhishtana for Charmadala, Ajagalika&Mashaka.

##### **Tamra-**

Sushruta mention the fourth layer of Twak as "Tamra". It lies beneath the Shweta and having thickness of 1/8th of Vreehi. It is adhishtana for Kushta and Kilasa.

**Vedina-**

Sushruta mention fifth TwakStara as Vedini. As name suggests, it is concerned with the perception of touch, pain, heat, and cold. It is about 1/5th of Vreehi in thickness. It is adhishtana for Kushta and Visarpa.

**Rohini-**

Sushruta state sixth layer of Twak as Rohini which is equal to one Vreehi in thickness. It is Adhishtana for Granthi, Apachi, Galaganda, Arbuda, &Shleepada.

**Mamsadhara-**

Acharya Sushruta mention seventh Twak layer as Mamsadhara. It is the thickest layer measuring about two Vreehi. It is the adhishtana for Bhagandara, Vidradhi&Arsha.

**Correlation of layers of Skin -**

Layers	TwakSthara	layer of skin
Prathama	Avabhasini	Stratum Corneum
Dwitiya	Lohita	Stratum Lucidum
Tritiya	Shweta	Stratum Granulosum
Chaturthi	Tamra	Malpighian layer
Panchami	Vedini	Papillary layer
Shasthi	Rohini	Reticular layer
Saptami	Mamsadhara	Subcutaneous tissue and muscular layer

**Conclusion:-**

The classical description regarding the Pramana of each TwakSthara has lacuna of evidence so, it can be the issue for similarly have a look at and have to be matched with the modern-day descriptions. The layer of the Twak corresponds with the layer of skin within the purposeful and structural element.

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