

## CRITICAL REVIEW OF *TWACHA* IN RESPECT TO *RACHANA*

*SHARIR AND KRIYA SHARIR*

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### ABSTRACT

The knowledge of *Rachana Sharir* and *Kriya Sharir* in respect to *Twacha* is of great importance as Skin is the most important factor involved in the pathogenesis of any disease which is manifested in the Skin. Almost every *Roga* has its one or more *Lakshana* having *Vyaktisthana* as *Twacha*. *Twacha* is the main site for manifestation of various *Twacha roga*. *Twacha Roga* and *Twacha Dushti* are the important aspects of *Twacha* in *Rachana Sharir* and *Kriya Sharir*. The Skin is a largest sensory organ that guards our body, acts as an insulator, regulates body temperature and protects us from harmful ultraviolet radiations of the sun. It is composed of 2 Layers:

### Epidermis

### Dermis.

The *Utpatti*, layers of *Twacha* and its *Panchabhautikatwa* all have been described briefly in the article. As per *Acharyas*, various *Twacha Roga* occurs in the different layers of the *Twacha*. The *Doshic* and *Dhatu's* involvement in formation of *Twacha* has also been mentioned. Relation of *Srotasa* and *Mala* with *Twacha* has also been described. An effort is made to correlate the layers of Skin to *Twacha*. In order to understand any Skin disease (*Twacha Roga*) a detailed study of the structure and function of Skin is necessary. The detailed conceptual aspect of Skin needs to be understood in respect to *Rachana Sharir* and

*Kriya Sharir* because Skin disorder is result of some kind of internal pathology with outer exhibition. Also Skin and Skin diseases have a definite effect on personality which is worth more in this era and especially in adolescent age. Various *Ayurvedic Samhitas* have been referred for a detailed literature review of this concept.

**KEYWORDS:** *Twacha, Rachana, Kriya, Sharir, Skin.*

## INTRODUCTION

The knowledge of *Rachana Sharir* and *Kriya Sharir* in respect to *Twacha* is of great importance as Skin is the most important factor involved in the pathogenesis of any disease which is manifested in the Skin. Almost every *Roga* has its one or more *Lakshana* having *Vyaktisthana* as *Twacha*. *Twacha* is the main site for manifestation of various *Twacha roga*. *Twacha Roga* and *Twacha Dushti* are the important aspects of *Twacha* in *Rachana Sharir* and *Kriya Sharir*.

The Skin is a largest sensory organ that guards our body, acts as an insulator, regulates body temperature and protects us from harmful ultraviolet radiations of the sun. It is composed of 2 Layers:

**Epidermis:** It is the outermost Layer of Skin and is protective in nature.

**Dermis:** Dermis is the layer of Skin, being fibrous, gives support to the blood vessels and lymphatic's.

The *Utpatti*, layers of *Twacha* and its *Panchabhautikatwa* all have been described briefly in the article. As per *Acharyas*, various *Twacha Roga* occurs in the different layers of the *Twacha*. The *Doshic* and *Dhatu's* involvement in formation of *Twacha* has also been mentioned. Relation of *Srotasa* and *Mala* with *Twacha* has also been described. An effort to correlate the layers of Skin to *Twacha* has also been made. In order to understand any Skin disease (*Twacha Roga*) a detailed study of the structure and function of Skin is necessary.

The detailed conceptual aspect of Skin needs to be understood in respect to *Rachana Sharir* and *Kriya Sharir* because Skin disorder is result of some kind of internal pathology with outer exhibition. Also Skin and Skin diseases have a definite effect on personality which is worth more in this era and especially in adolescent age.

**AIM**

To study the concept of *Rachana Sharir* and *Kriya Sharir* of *Sapta Twacha* and its modern co-relation.

**OBJECTIVES**

To do a detailed literary review about the concept of *Twacha* according to *Rachana Sharir* and *Kriya Sharir*.

To study the various *Twacha Roga* and its co-relation with the various layers of *Twacha*.

To study the relation between *Dosha*, *Dhatu*, *Mala*, *Srotasa* and *Twacha*.

**MATERIAL AND METHODS**

Review of work was done with the help of various *Samhitas* (classical texts).

**TWACHA ACCORDING TO RACHANA SHARIR**

According to *Ayurveda*, *Twacha* is a seat of *Sparshanendriya*.

It is the Largest organ of the body.

It carries the sensation of touch.

It covers the external part of the body.

It also covers other sense organs.

It is described as *Matruja Avayava*.<sup>[1]</sup>

It is made up of combination of *Pancha Mahabhutas* of which *Vayu Mahabhuta* is the most important.<sup>[2]</sup>

The development of Skin occurs in *Tritiyae Masa* i.e. 3<sup>rd</sup> month of intrauterine life.<sup>[3]</sup>

**Utapatti (Formation) of Skin**

The Skin develops like layer of cream on the milk. The heating of milk results in the formation of cream like layer on its surface. The formation of Skin results from heat generated by the process of union of *Shukra* and *Shonita* and the formation of other *Dhatus* in foetal body.<sup>[4]</sup>

There are different views regarding the development of the Skin:

*Acharya Charaka* states that development of the Skin results from the *Shukra Shonita Sanyog* and formation of all seven *Dhatus*.

According to *Acharya Vagbhat*, the Skin develops during the formation of blood.

## Layers of Skin

According to *Acharya Charaka*: *Acharya Charaka* has considered that the Skin is made up of 6 layers which are<sup>[5]</sup>:

*Udakadhara*

*Asrakdhara*

*Tritiya Layer: Sidhma-kilasa Adhithana*

*Chaturtha Layer: Dadru-kustha Adhithana*

*Panchama Layer: Alji-vidradi Adhithana*

*Shastha Layer: Arushi Adhithana.*

According to *Acharya Sushruta*: *Acharya Sushruta*, describes 7 distinct layers of the Skin; each with Specific Size and function. The layers are designed so that each layer provides support to the layers above it. The Skin as a whole is able to effectively perform its overall functions when all the layers are healthy and balanced. These layers when gets affected by vitiated *Doshas* then it give rise to different Skin diseases. The Seven layers of Skin with their Size and the diseases which originate from them are as follows:

**Table no. 1.1. Showing different Layers of *Twacha* with their Size, Specifications and Disease which originate from Skin.**

Sr. No	Skin Layer	Size	Specifications	Site of Disease
1.	<i>Avabhasini</i>	1/18 <sup>th</sup> part of <i>Vrihi</i> .	First superficial layer which is responsible for the colour and shadows of five types i.e. <i>Prabha</i> .	<i>Sidhma</i> (Psoriasis), <i>Padmakantaka</i> (Pimples, Acne)
2.	<i>Lohita</i>	1/16 <sup>th</sup> part of <i>Vrihi</i> .	Supports the outermost layer.	<i>Tilakalaka</i> i.e. Mole, <i>Nyachacha</i> (Dark Circles), <i>Vyanga</i> (Black Pigmentation).
3.	<i>Shweta</i>	1/12 <sup>th</sup> part of <i>Vrihi</i> .	This is a white layer and it provides balance to Skin colour.	<i>Charmadala</i> (Atopic Dermatitis), <i>Ajagallika</i> (Eruption or Blisters) and <i>Mashaka</i> (Moles).
4.	<i>Tamra</i>	1/8 <sup>th</sup> part of <i>Vrihi</i> .	This layer nurtures the upper layers of the Skin.	Different types of Skin disease e.g. <i>Kustha</i> (Leprosy), <i>Kilasa</i> .
5.	<i>Vedini</i>	1/5 <sup>th</sup> part of <i>Vrihi</i> .	This 5 <sup>th</sup> layer sensually links the Skin to the rest of the body.	Seat for <i>Kushtha</i> (Leprosy) and <i>Visarpa</i> (Erysipelas).
6.	<i>Rohini</i>	1 <i>Vrihi</i> .	Layer from where the <i>Roma Kupa</i> takes origin.	<i>Granthi</i> (Cyst), <i>Apachi</i> (Lymphadenopathy), <i>Arbuda</i> (Cancer/ Tumours), <i>Shlipada</i> (Elephantiasis) and <i>Galaganda</i> (Goitre).
7.	<i>Mamsadhara</i>	2 <i>Vrihi</i> .	Innermost layer in close contact with <i>Mamsa</i> .	<i>Bhagandara</i> (Fistula), <i>Vidradhi</i> (Abscess) and <i>Arsha</i> (Haemorrhoids)

**Avabhasini:** It is the 1<sup>st</sup> Layer that reflects the complexion and the quality of the *Rasa Dhatu*. It also acts as a mirror. It indicates whether the physiology as a whole is balanced or imbalanced, and whether there is inner health disorder. It reflects the colours of the inner layers because it does not have its own colour. Internal and external re-hydration and regular massage supports the health and appearance of the *Avabhasini* layer of the Skin.

**Lohita:** It is the 2<sup>nd</sup> Layer. It indicates the quality of *Rakta Dhatu* (Blood). If there is *Ama* (impurities) in the blood, it impacts the aura of the outer layer and accentuates sensitivity to the sun. The colour of this layer resembles molten iron.

**Shweta:** It is the 3<sup>rd</sup> Layer. It provides balance to Skin colour, lighten the darker colours of the inner layers.

**Tamra:** This is the 4<sup>th</sup> Layer of Skin. It supports the immune system. This is the layer that helps the Skin perform its function of being a “barrier”. Skin infections reflect an imbalance in this layer. It is copper-coloured.

**Vedini:** This is the 5<sup>th</sup> Layer of Skin. It is the centre for transformation of sensation e.g. feeling of pain.

**Rohini:** It is 6<sup>th</sup> Layer that supports healing and regeneration. Imbalance in this layer retards healing. A balanced diet, rich in nutritional value, supports the *Rohini* Layer.

**Mamsadhara:** It is the 7<sup>th</sup> Layer and it is the platform for the Skin’s stability and firmness. When this layer is in balance, the Skin looks young and supple. A Skin product that has a *Vayasthapana* effect nourishes this layer to help retard the aging process.

The Seven Layers of Skin get their nutrition from *Mamsa Dhatu* (muscle tissue). Skin is also known as an *Updhatu* (secondary tissue product) of the *Mamsa Dhatu* (muscle) which develops from *Rakta Dhatu* (blood). It does not do *Poshan Karma* i.e. it does not give nutrition to the other *Dhatu*. It is a mirror that reflects the qualities of the *Rakta Dhatu* (blood) and the *Rasa Dhatu* (body’s plasma tissue). Hence it is a common saying that glowing Skin is the result of good quality *Rasa* and *Rakta*.

A brief physiological anatomy of *Twaka* (Skin) is necessary to know the *Doshic* physiology of *Twaka*. The thickness of the layers of *Twaka* as mentioned are usually related to the Skin

over the muscular parts of the body, but not the Skin over the forehead or over the small fingers. In abdomen, incision is indicated as equal to thickness of thumb width; this denotes the more thickness of Skin of abdomen. The knowledge of this anatomical variation is very essential before surgery.

### **TWACHA ACCORDING TO KRIYA SHARIR**

The physiology of the body is mainly governed by the *Dosha*, *Dhatus* and *Malas*. So, to examine the role of Skin in the physiology of our body, we will have to assess the effects of *Dosha*, *Dhatus* and *Malas*.

The Skin retains water and keeps itself moist. It is clear that it has a relation with water content and sweat as described by *Acharya Charaka* in *Rachana Sharir*. The Skin is responsible for absorption of *Sneha* (Oil) of the Skin ointment, *Lepa* applied etc.

### **Relation of Dosha's with Skin**

**Vata Dosha:** According to *Ayurveda*, *Twacha* means Skin which is related to *Vata Dosha*. It is site of *Vata* and also the sense of touch carried through the Skin by *Vata*. Another aspect is that reflection of *Vata Dosha* in the body is expressed on Skin. For e.g *Vata Vriddhi* causes *Rookshata* (Roughness) in Skin. *Vatadosha Vriddhi* in the body is exhibited by darkness of the Skin.<sup>[6]</sup>

**Pitta Dosha:** Type of *Pitta Dosha* called *Bhrajaka Pitta* also stays there and gives colour to Skin.<sup>[7]</sup> The *Pittadosha Vriddhi* in the body results in yellowish discolouration of the Skin,<sup>[8]</sup> whereas in *Pittakshaya*; the lustre of the Skin is lost.

**Kapha Dosha:** The *Vriddhi* of *Kapha Dosha* causes whitish discolouration of the Skin.<sup>[9]</sup>

### **Relation of Dhātu's with Skin**

*Dhatus* like *Mamsa Dhātu* are directly related to the Skin. *Twacha* is *Upadhatu* and also root of *Mamsavaha Srotasa*.<sup>[10]</sup>

Also, *Rasa*<sup>[11]</sup> and *Rakta*<sup>[12]</sup> *Dhatus* are indirectly related to Skin. For e.g. in case of *Rasa* and *Rakta Kshaya*, the important manifestation is *Rookshata*, which is seen in *Twaka*. In case of *Rakta Dushti*, almost all manifestations are seen in the *Twaka*.

Lusture of body which is reflection of good *Shukra* which is also seen on Skin.<sup>[13]</sup>

The oiliness of the Skin has relation with *Majja Dhātu*

**Relation of Mala's with Skin**

Presence of *Sweda* is essential for maintaining the health of the Skin.<sup>[14]</sup>

The oiliness of the Skin has relation with *Majja Dhatu* because the *Twaka Sneha* or *Mala* of *Majja Dhatu* is exhibited on the Skin.

**Functions of Skin**

The most important role of the Skin in the body is to reflect colour, oiliness, to carry out sensation of touch.

Cover the body organs and hence protect them from external organisms.

Balance of body *Mala* by excretion of *Sweda* (Sweat). By doing so, Skin helps in body physiology in normal conditions. In abnormality it reflects the abnormal situations.

Apart from all this, *Twaka* is having relationship with *Srotasa*. *Twaka* is *Mula* of *Mamsavaha Srotasa* and *Romakupa* is *Mula* of *Swedavaha Srotasa*, which originates from *Rohini* Layer of *Twaka*.

**PANCHBHAUTIKTA**

At the elemental level, all the *Mahabuta* are present in *Twaka*.

*Akasha Mahabuta* in the form of sweat pores.

*Vayu Mahabuta* is the *Mula* for *Sparshana* i.e. tactile sensation.

*Agni Mahabuta* is in the form of *Bhrajaka Pitta*.

*Jala Mahabuta* in the form of *Sweda* (sweat) and other sebaceous secretions.

*Prithvi Mahabuta* is the one which gives form, shape or structural appearance.

**LIKELY CORRELATION BETWEEN LAYERS OF SKIN AND TWACHA****Epidermis**

Horne Layer: *Avabhasini*

Stratum Lucidum: *Lohita*

Stratum Granulosum: *Shweta*

**Dermis**

Malpighian Layer: *Tamra*

Papillary Layer: *Vedini*

Reticular Layer: *Rohini*

Subcutaneous tissue and Muscles: *Mamsadhara*.



## MODERN REVIEW

### SKIN STRUCTURE

Skin does the dual work as a barrier between the outside environment and our body.<sup>[15,16]</sup> The layers of the Skin are epidermis and dermis.<sup>[16,17]</sup>

**Epidermis:** The epidermis is the outermost layer, having a thickness of 0.1 to 0.6 mm as per its location on our body. 90-95% of cells in the epidermis are keratinocytes. The bottom most layer of epidermis has a layer of undifferentiated keratinocytes which are in contact to the dermis. These rows of cells divide constantly and thereby producing new cells. Outermost layer of Skin is Stratum corneum.

**Dermis:** Inner layer of Skin between epidermis and other layer of tissue fat muscle, etc Thickness is 0.3 to 0.4 mm. Blood vessels supplying nutrients to all Skin layers are in dermis. Extracellular proteins immune cells, reside in dermis.

### CONCLUSION

Skin (*Twacha*) is one of the important Organ of the body. It has a definite role in one's personality. So, disorders of Skin (*Twacha*) affect not only on somatic level but also on psychological level too. To get a proper idea of disorder one must know the normal echo-texture. Hence knowledge of normal condition of Skin (*Twacha*) is necessary. So, *Twacha* according to *Rachana Sharir* and *Kriya Sharir* has to be studied in depth.

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