



LITERARY RESEARCH OF 'TWAK SHARIR' W.R.T. AYURVEDA SCIENCE

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ABSTRACT

Ayurveda is an ancient medical science that created the concept of *Pancha gyanendriya*, the most important of which is *Twagindriya* or *Sparshanendriya*. The *Sparshanendriya* is a sense organ that is responsible for touch. It covers and protects the body's surface from heat, cold, and external infections, among other things. The biological marvel is the human skin. It is the body's protective covering. The knowledge of ayurveda is made more practical and useful by *Acharya Sushruta*. His contributions to ayurvedic *shareer* include the classification and description of various body structures such as *sira*, *dhamni*, *snayu*, *asthi*, and *Twacha*. *Twacha* requires a thorough examination because it provides as a measurement tool of a person's health and as a repository for all skin disorders. It is not only a protective sheath, but also a mirror of the body's internal system. *Twacha* has many different concepts in terms of its *Utpatti*, layers, and disorders. The description of *Aristha lakshana* related to *Twacha Shareer*, for example, *Suptata* of *Twacha* and many others, can be found in the *Samhita* and used for disease prognosis.

Keywords: *Twacha Shareer*, *Twacha Vyadhi*, Skin

INTRODUCTION

Twacha sharir is very elaborately explained in our classics. We can find descriptions regarding layers of skin in *Brihatrayi* and *laghutrayi*.

As far as concerned as *Shareer Rachana* one must have good theoretical knowledge with perfect and

right concepts in mind accompanied by dissection of the human body to confirm the concepts and ideas.

By dissecting the human body, *Acharya Sushruta* was able to describe all of its structures. His method of dissection was quite different from what is used today. After explaining how an ideal dead body should be and how to preserve and decompose a dead body, he instructs to begin dissection from the outermost covering of the body, i.e., skin.

Acharya Sushruta has a virtuous sense of observation of nature and application that observation to explain many laws, principles, and structures of the human body. This application is called *Drushtanta*. *Sushruta* and other Acharyas have presented a simple and precise *Drushtanta* of *Santanika* while discussing the genesis of *Twacha*.

Acharya Sushruta has mentioned in the *sharir sthana* about the formation of *Twacha* at the level of embryogenesis and has given the simile to the formation of cream on the milk. He has also described the thickness of each layer and several diseases which manifest in different layers of the *Twacha*.

Sushruta instructs that after the dead body has completely decomposed, separate the layers of skin one by one and visualize the structures beneath the skin. The fact that skin is the body's outermost covering is self-evident. This can be confirmed by the description of the various parts of the body, whose fitted skin has not yet been obtained except through surgical knowledge.

The protective covering of the human body is the skin. Its properties include being soft, pliable, strong, waterproof, and self-repairing. It's like a big container; without it, all of our delicate internal organs would spill out.

The integumentary system is the most complex and specialised structure in the body, so it is grouped with the sense organs. The accessory structures of this organ system include hair, nails, glands, and specialised nerve receptors for stimuli like touch, cold, heat, pain, and pressure.

Internal structure protection, disease-causing micro-organism entry prevention, temperature regulation, perspiration excretion, pigmentary protection against

ultraviolet sunrays, and vitamin D production are among the functions.

Aim And Objective

- Conceptual study of *Twacha Sharir*
- To understand the basis of the classification of *Twacha*.

Material And Method: -

Various ayurvedic classic texts were used for this study as source materials. The Main Ayurvedic books used are *Brhitarayi* and *Laghutaryi* etc. and available commentaries on them.

Definition:

Twacha is the *Sthana* of *Sparshanendriya*. The word "*Twacha*" or "*Charma*" is used for the skin in all *Ayurvedic* classics¹. It can be defined as a body substance that covers the internal tissues like *Rakta*, *Mamsa*, *Medas*, and other *Dhatus*. It is considered the seat of *Sparshanendriya* as well as one of the main seats of *Vata*.

In *Sushruta Samhita*, *Acharya Sushruta* has mentioned that when *bhutatma adhisthita shukra* and *shonita* get *pakva* it forms the seven layers of *Twacha* and *acharya* has given the simile of this with *ksheera santanika*².

Acharya Charaka described *Twacha* as a *matraja avayava* which is one among the six *bhavas* essential for the development of a fetus³.

Etymology of Twacha:

Twag + Kwip → Twacha

Twacha is derived from "*Twacha Samvarne*" *Dhatu* means 'the covering of body'.

Synonyms of Twacha-

Twacha, *Charma*, *Sparshanendriya*, *chhavi*, *chhadani*, *asrukdhara* etc.

Samhita Kal

Ayurveda was well developed at the time of *samhita kal*, it was known as the golden era of ayurveda. This kal gives a great knowledge about *Twacha sharir* and its related disease.

Utpati and Layers of the Twacha According to Acharya Sushruta⁵:

Sushruta samhita has described the formation of skin during the development of the fetus. The description suggests that the skin develops like the cream on the

surface of milk in the *garbhasaya* (uterus) during the course of the development of the fetus.

Acharya Sushruta also mentioned the thickness of each layer as well as the diseases which will occur in respective layers. These seven layers of *Twacha* are as follows:

1. Avabhaasini: It is the first and outermost layer, which expresses colour and illuminates the five types of *chaaya*, and it has a thickness of 1/18th of the thickness of *vreehi*, and it is the region for diseases such as *sidma* and *padmakantaka*.

2. Lohita: it is the second layer which is having the thickness of 1/16th part of *vreehi*, and it is the region for diseases like *tilkalaka*, *nyachha*, and *vyanga*.

3. Shweta: it is the third layer which is having a thickness of 1/12th part of *the vreehi*, and it is the region for diseases like *charmada*, *ajagallika*, and *mashaka*.

4. Taamra: it is the fourth layer which is having a thickness of 1/8th part of *the vreehi*, and it is the region for diseases like *kilaasa* and *kusta*.

5. Vedini: it is the fifth layer which is having the thickness of 1/5th part of *vreehi*, and it is the region for diseases like *kusta* and *visarpa*.

6. Rohini: the sixth layer is *rohini*, it is having a thickness equal to the size of *vreehi*, and it is the region for diseases like *granthi*, *apache*, *arbuda*, *slipada*, and *galaganda*.

7. Mamsadhara: The *mamsadhara*, the innermost and seventh layer, has a thickness twice that of the *vreehi* and is the site of diseases such as *bhagandara*, *vidhradi*, and *arshas*.

The thickness of each layer is broadly applicable for the rich muscular parts and cannot be considered in the region of the scalp or less fleshy areas.

Acharya Sushruta's measurement regarding the thickness of the *Twacha* seems to be more accurate. His measurement of the thickness of all the types of *Twacha* expressed in modern units is very much similar to the thickness of skin given in modern textbooks of anatomy.

Utpati and Layers of The Twacha According to Acharya Charaka⁶:

Charaka described *Twacha* as the *Matrija Bhava* (Maternal factor), which is one of the six *Bhavas* essential in the development of the foetus.

Twacha is the *Upadhatu of Mamsa* so; ultimately *Twacha* is formed by *Mamsa*.

In the 7th chapter of *sharir sthana acharya Charaka* has explained the six layers of the skin and the diseases which occur in each layer, following layers are:

1. Udakadhara:

It is an outermost layer of *Twacha*, as per the name it holds *rasa dhatu* and *lasika* inside the body and prevents their loss from the body.

2. Asrugdhara:

The second layer is *asrugdhara* which retains the *rakta*.

3. the Third layer is the site for the manifestation of the *Sidma* and *kilash* disease.

4. Fourthlayer is the site for the manifestation of the *Dadru* and *Kushta*.

5. the Fifth layer is the site for *Alaji* and *Vidradhi*.

6. Six layers are also the site for *Arunshika* on the *sthula parva*, which is *rakta* and *Krishna vama* and is difficult to treat. This is the layer whose removal results in loss of consciousness.

Utpatti and Layers of the Twacha according to Astanga hridaya⁷⁻⁸:

Acharya Vagbhat has described the formation of the skin because of the *paka* of the *rakta dhatu* by its *dhatvagni* which after drying forms *twacha* (skin) like the formation of the cream on the surface of boiled milk.

In *Sarvanga sundari teeka*, *Acharya Arundatta* has explained the seven *Twacha*, these are-

1 Bhashini: it is the first layer which is having the thickness of 1/18th part of *vreehi*, and it is having five kinds of *chaaya*.

2. Lohini: it is the second layer which is having the thickness of 1/16th part of *vreehi*. *Lohini* is *Asragdhara* which retains the *Rakta*.

3. Shweta: it is the third layer which is having the thickness of 1/12th part of *vreehi* and *sweta* is the *adhithana* of *Sidhma* and *Shvitra*.

4. *Tamra*: it is the first layer which is having the thickness of 1/8th part of *vreehi*, and *Tamra* is the *adhithana* of *Sarva Kushta*.

5. *Twagvedini*: it is the first layer which is having the thickness of 1/5th part of *vreehi* and *Twagvedini* is the *adhithana* of *Vidradhi* and *Alaji*.

6. *Rohini*: it is the first layer which is having a thickness equal to the part of *vreehi*. *Rohini* layer is one on the excision which causes loss of consciousness.

7. *Mansadhara*: it is the first layer which is having a thickness of twice the part of *vreehi*. *Mansadhara* is the *adhithana* of *Arunshika* and *Krishna rakta* and it is *duschikitsya*.

Uttipatti and Layers of the Twacha according to Astanga Sangraha⁹: Acharya Vagbhatta mentioned the *Twacha*-

1. The first layer is *Bhasini* which is *Udakdhara*,
2. The second layer is *Asragdhara*,
3. The third layer is *Shweta* which is the *Adhithana* of *Sidhma* and *Kilasha*,
4. 4th layer is *Tamra*,
5. 5th layer is *Vedini*, which is the *Adhithana* of *Alaji* and *Vidradhi*,
6. 6th layer is *Rohini* which is *Prandhara*, which is one on the excision which causes loss of consciousness, and *Adhithana* of *Arunshika*, and *Krishna Rakta* which is *Dushchikitsya*.
7. 7th layer is *Mansadhara*.

Acharya Vagbhata mentioned about the *Twacha Pramana* same as *Sushruta*.

Uttipatti and Layers of the Twacha according to sharangdhar:

Sharangdhara has also named the layers according to *Sushruta*, except for the seventh layer. He named this layer '*Sthoola*', the site of *Vidradhi*. He has mentioned about the *Twacha Pramana* of *Sthoola* is twice of *Vreehi*. (Shar. pu. khand 5/5)

1. **Avabhaasini:** *Sidhma*
2. **Lohita:** *Tilakalka*
3. **Shweta:** *Charmadala*
4. **Taamra:** *Kilas* and *Shivtra*
5. **Vedini:** *Sarvakustha*
6. **Rohini:** *Granthi, Galganda, Apachi*
7. **Sthoola:** *Vidradhi*

Uttipatti and Layers of the Twacha according to Bhavaprakash¹¹:

Bhavaprakash has the same view over *Twacha Stara* as *Sharangdhara*. *Bhavamishra* in his *Poorakhand 'Garbha Prakrana'* *Adhyaya* described seven *Stara* of *Twacha* and associated disorders. According to *Bhavamishra* *Twacha* is formed by metabolization of *Shukra* and *Rasa Dhatu*, similar to the formation of a creamy layer over boiled milk

The description given by *Bhava Mishra* is summarized as:

1. **Avabhaasini:** *Sidhma*
2. **Lohita:** *Tilakalka*
3. **Shweta:** *Charmadala*
4. **Taamra:** *Kilas* and *Shivtra*
5. **Vedini:** *Visarpa, kustha*
6. **Rohini:** *Granthi, Galganda, Apachi, Gandmala, Arbuda, Shleepada*
7. **Sthoola:** *Vidradhi*

Pancabhautika constitution of Twacha (skin):

According to the principles of *Ayurveda*, all the organs of the body are a combination of *pancamahabhutas*. Skin also has all the modalities of *pancabhuta* viz. *parthiva* part is *Mamsa* as *Twacha* is the *Updhatu* of *Mamsa*, presence of *Jala Mahabhuta* provides *Snigdha* and firm property to the skin, the *Varna* (color) and luster of skin are due to the *Agni Mahabhuta*, tactile part of the skin is due to *Vayu Mahabhuta* and micro pores for *sveda* are the contribution of the *Akasa Mahabhuta*.

Twacha in relation with Dosha:

Vata:

It is residing in the *Twacha* and produces discoloration, twitching, roughness, and pricking pain when it is vitiated¹².

Pitta:

It is residing in the *Twacha* known as *Braajaka pitta* and it is responsible for the digestion and absorption and also it helps in the expression of *Varna* of the *Twacha* and enables the digestion and utilization of substances used through *Abhyanga, Parishheka, Avagahana*, etc. it indicates the glow of one's natural complexion¹³.

Kapha:

The *Snigdhatva*, *Slekshnta*, *Mruduta*, *Sheetata*, *Prasannata*, and *Snigdhwarna* such qualities are derived from *kapha Dosh*.

Twacha and Dhatu:

Twacha And Rasa Dhatu:

In several places *Twacha* has been used as a synonym of *Rasa Dhatu* like *Twaksara Purusha* etc. in the context of *Kushta Acharya Sushruta* has mentioned in early stages that *kushta* is situated only in the *Twacha*, *Dalhana* comments on it and says that *Twachaashrita* i.e., *Rasashrita kushta*¹⁴.

Twacha And Rakta Dhatu:

Acharya Sushruta mentioned the function of *Rakta Dhatu* as *Varna Prasadana* i.e., it imparts the colour of the *Twacha*, *Mamsapusti* i.e., nourishes the *Mamsadhtu* in the body¹⁵.

Twacha and Mamsadhatu:

It is *Upadhatu* of *Mamsadhatu*¹⁶.

Twacha and Medadhatu:

The *Mala* of *Meda Dhatu* is *Sweda* and *Sweda* is expelled out of the body through *Twacha* and in this way these two are related.

Asthi Dhatu & Twacha-

The *Kitta* of *Asthi* is *Kesha* and *Loma* which emerge out from *Twacha*.

Majja Dhatu & Twacha-

Mala of *Majja* is *Sneha* of *Netra*.

Shukra Dhatu & Twacha- *Shukra* though has no relation with *Twacha*, *Harsha* and *Sparsha* are related to *Twacha*. *Ojakashya Lakshna* i.e., *Duschayo* exhibits at *Twacha*.

Twacha & Updhatu-

Twacha is *Updhatu* of *Mamsa*.

Twacha & Mala¹⁷-

The *Sweda* is the *Mala* of *Medodhatu* which is excreted out from the *Swedavahi Srotas* of *Twacha*. *Sweda* maintains luster & humidity of the skin. Our *Acharyas* believe that nails & hairs are the *malas* of *Asthidhatu* & *Twachagat sneha* is the *Mala* of *Majja Dhatu*.

Twacha & Srotasa Relation¹⁸:

Twacha is closely related to *Swedavaha Srotasa* and *Mamsavaha Srotasa*.

1)Swedavaha Srotasa-

Meda and *Lomakoopa* are the roots of *Swedavaha Srotasa* out of which *Lomakoopa* are present in the skin in the form of numerous openings. Also, *twacha* acts as a medium for evaporation of *Sweda* outside the body.

2) Mamsavaha Srotasa:

According to *Sushruta* and *Charaka*, *Snayu* and *Twacha* are the roots of *Mamsavaha Srotasa*.

Twacha & Sara:

Lakshna of *Twacha Sarata* themselves signifies well *sthanas* of all the above said *Bhaves* the *Sarata* of *Twacha* is also examined in different physiological and pathological conditions like other studies regarding the *Sarata* of *Asthi* etc. This is known as *Sora Preeksha* in *Ayurveda*. The people who have better skin consistency are termed as *Twacha-Sara*.

Twacha & Rogamarga:

Twacha is considered as *Sakha gata (Bahya Rogomarga)* along with *Raktadi Dhatu*.

Twacha & Indriya:

Twacha is *Adhithana* of *Sparshanindriya* and not *Twacha* itself is *Sparshanindriya*. *Sparshanindriya* is made up of *Vaikaarikaand Tejava (Satvika and Rajas) Ahankaras* according to *Samkhya Darshan* and according to *Nyaya-Vaisheshikaa (Tarka Samgraha)*, it is made up of two *Parmanus (Dvyanuka)* as *Karya* of *Vayu Mahabhuta*. *Vayu* is the *Adhithana* of *Sparshantindriya*.

Twacha and Varna Relation:

Varna of a person is expressed in the *Twacha*. It is determined during foetal life. In *Charaka Shareera* the *varna* of a foetal is determined in the sixth month of intrauterine life.

The Relation of Twacha in the Other Diseases:

In the context of *chaya* and *prabha* *Acharya Charaka* explains in *indriyasthanas*, that the *chaya* circumscribes the complexion of the body whereas *prabha* illuminates the complexion.

In the Context of Poorvaroopa of Kustha:

The roughness of the skin, itching sensation, excess or absence of sweat. (Su.S. Ni. 5/4)

In the Context of Visarpa:

Infected *doshas* vitiated first *Twacha* (*Lasika*) and then *rakta* and *mansa* to produce the condition called *visarpa*. (Su. Ni. 10/3)

In the Context of Kamala:

There will be yellowish discoloration of the *Twacha* and *Netra*. (Ch. Chi. 16/35)

In the Context of Pandu:

There will be whitish yellow discoloration of *Twacha* and loss of *sneha* in the body.

In the Context of Vrana:

Lesions in the skin can easily be cured compared to any other sites which are difficult to treat. Abnormal shapes of the wound are also cured. (Su.Su. 22/4)

In the Context of Vidradhi:

Inflicted *vatadi doshas* first vitiate the *Twacha*, *rakta*, *Mansa*, and *meda* to produce the inflammation. (Su. Ni.9/4)

DISCUSSION

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

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

CONCLUSION

The following conclusions can be drawn by the observation based on the literary review of both ayurveda and modern.

1. *Twacha* is most of the sensory organ of the body which covers the surface and protects against heat, cold, infection, etc.
2. In Ayurvedic classics all *Acharya* has given the explanation about the layers of *Twacha* and their thickness with diseases which can occur in this.

REFERENCES

1. Ravidatta Tripathi, *Charak Samhita, Ch. Sha.7/16*, Edition 2006, Chaukhamba Sanskrit Pratishthan, Delhi, p 339
2. kaviraj ambikadutta shastry, *Sushruta samhita, sharir sthana*, 12th ed., Varansi, Chakhumbha Sanskrit sansthan 2001 Pp-824.
3. yadavji trikamaji acharya charaka samhita 5th ed. Varanasi, Chaukhamba Sanskrit samhita publisher P 339.
4. yadavaji trikam ji acharya, *Sushruta samhita 7th ed.* 2002, Varansi, Chaukhamba orientalia, P-355.
5. Pt Kashinath Shastry and Dr. Gorakhanath Chaturvedi, *Charaka Samhita 22nd Edition*, Varanasi, Chaukhamba Vishvabharti Publishers, P-910.
6. Shrimadvagbhata virachitam, *Ashtangahrudayam*, Vidyotini Bhasha Teeka Vaktavya Parishishtasahitam, Kaviraj Atridev Gupta, Chaukhamba Prakashan, Shareer Sthana, 3rd Chapter, Sloka No.3, Reprint, Vi. S. 2069, Pp839, P- 250
7. kaviraj atridev gupta, *Astanga hrudaya*, 36th ed, varansi, krisnadas academy, Pp- 614, P-175.
8. kaviraj atridev gupta, *Astanga sangraha*, 36th ed, varansi, krisnadas academy, P-300
9. Bhavprakash pu.kh.18-24
10. kaviraj ambikadutta shastry, *Sushruta samhita*, 12th ed., Varansi, Chakhumbha Sanskrit sansthan 2001, Pp-563, P-230.
11. kaviraj ambikadutta shastry *Sushruta samhita*, 12th ed., Varansi, Chakhumbha Sanskrit sansthan 2001, Pp-563, P-89.
12. kaviraj ambikadutta shastry, *Sushruta samhita*, 12th ed., Varansi, Chakhumbha Sanskrit sansthan 2001, Pp-563, P-247
13. Ambika Datta Shastri, *Sushruta samhita Su. sut15/7*, 12th Edition, Chakhumbha Sanskrit sansthan 2001
14. Ravidatta Tripathi, *Charaka samhita, Ch. chi15/17*. Edition 2006 Chaukhamba Sanskrit Pratishthan, Delhi.
15. kaviraj ambikadutta shastry, *Sushruta samhita*, 12th ed., Varansi, Chakhumbha Sanskrit sansthan 2001, Pp-563, P-247
16. pt kashinath shastry and dr gorakhanath chaturvedi, *Charaka samhita, viman sathan 5/8*, 22nd edition, varanasi, chaukhamba vishvabharti publishers.

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