

A Review of Twacha Sharir (Skin)

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Abstract

Ayurveda is an ancient & holistic system of medicine. Ayurveda describes seven distinct layers of the skin, each with its own structure 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. In Samhitas Twak/Twacha is described as outermost protective layer of body as well as largest sensory organ of body. Acharya Sushrut and Acharya Charak very minutely described its layers according to their functions and also diseases which are related to those layers. In Ayurvedic classics, various opinion regarding twacha uttapati, twacha stara and associated disorders are mentioned.

Our skin is our largest organ.” Acharya Sushruta has mentioned five sensory organs i.e. Gyanendriyas. Sparshanendriya is one of them whose adhishthana is Twacha (skin). As we know, skin is the largest sense organ of the body which sense touch, pain, pressure, temperature etc. It is also known as “The First Line of Defence”. Twacha is considered as updhatu of mamsa dhatu. “In Ayurveda, skin is considered a manifestation of inner health. Our skin is our largest organ.” Several concepts about Twacha are also quite useful in diagnosis and treatment of many disorders. . Hence to know abnormalities of skin one must have knowledge about normal state of its structure of skin must to be studied in detail.

Keywords: Sparshanendriya, Gyanendriyas, Adhishthana, Twacha, Skin.

Introduction

Ayurveda is science of life and its main aim

is to maintain healthy status of healthy living being, i.e., prevention of disease and treatment of disease. As per Ayurvedic science, sharir is made up of dosha, dhatu, updhatu and mala. Twacha is considered as updhatu of mamsa dhatu. Twacha is one among the five gyanendriyas having its perception as mentioned with their respective diseases. Twacha is described as Matruja avayava

Acharya Charaka defines skin as the structure covering the whole body. Healthy skin is the mirror image of good health. The outer or external protective covering which envelops the entire surface of the body is known as skin.

Skin is most presentable part of body having definite role in personality. Hence to know abnormalities of skin one must have knowledge about normal state of its structure of skin must to be studied in detail.

Acharya Sushruta has stated that the thickness of twacha is different in different sites of

body as in mamsalsthaana and lalaat the twacha pramaan varies. Modern science also stated the same concept that skin is thickest on palms and soles of feet (1.5 mm thick), while thinnest on eyelids and in post auricular region (0.05 mm thick).

According to Ayurveda Twacha is Adhishthan of Sparshanendriya. It carries the sensation of touch. It covers the external part of the body. It also covers other sense organ. It is made up of combination of panchamahabhutas of which vayu mahabhuta is the most important. The development of skin occurs in tritiya masa i.e. third month of intra uterine life. The acharya described the development of skin by a suitable example. The skin develops like layer of cream on the milk. The heating of milk results in the formation of cream like layer on the surface. The formation of skin results from heat generated in the process of union of shukra and shonita and the formation of other dhatus in foetal body. There are different views regarding the development

Panchapanchaka :

- Indriya: Sparshendriya.
- Druvya: Vayu.
- Adhishthana: Twacha

- Artha: Sparsha.
- Budhi: Sparsha budhi

Purity (brightness) of skin is the purity of blood. According to Acharya Charaka it is the Matraj Avyavava. Sushruta described seven layers of Twaka having specific names, thickness and associated skin disorder affecting the particular layer of skin. The thickness of skin is measured according to parameter available at that time that is Vrihi that can be taken as thickness and size of paddy or barley.

The pitta situated in skin is known as Bhrajak, which absorbs drugs applied externally in forms of massage bath, dipping, paste etc, and also illumines various shade of complexion. Mamsa vaha srotus have their root in snay and twacha .

Skin covers the entire body with six parts. Tactile perception is perceived by sparshendriya which is situated in the skin.

According to Ayurveda, function of twacha can be summarised as:

1. Seat of sparshendriya.
2. One among root of mamsavaha srotus.
3. Covers the entire body with six parts.
4. Seat of bhrajak pitta.

In different texts of Ayurveda, there is little bit controversy regarding number of layers of twacha.

The variation is as follows

1. Charak Samhita—6
2. Sushrutasmhita—7
3. Ashtanghridaya—7
4. Modern Science—7

Ayurveda Sushruta describes seven distinct layers of the skin, each with its own structure 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.

1. Avabhasini= first layer is Avabhasini having thickness about 1/18 th of Vrihi. and it is twak roga adhisthana of Sidhma and Padamkantka.
2. Lohita= The second layer is known as lohita, which measures sixteenth part of vrihi. and is the seat of tilakalaka, nyaccha and vyanga.
3. Shweta= The third layer is known as shweta, measuring one twelfth o Vrihi.

and is the seat of charmadala, ajagalli and masaka.

4. Tamra= The fourth layer is tamra, measuring one eighth of Vrihi and is the seat of various types of vitiligo and leprosy.
5. Vedini= Fifth layer is vedini, measuring one fifth of Vrihi .It is the seat of leprosy and erysipelas.
6. Rohini= The sixth layer is rohini, measuring one Vrihi and seat of cyst, scrofula, tumor, elephantiasis and goiter.
7. Mamsadhara= The seventh layer is mamsadhara, measuring two Vrihi and seat of fistula in ano, abscess and piles.

Acharya Charaka mentioned six layers of Twacha:

1. Udakadhara – The outermost layer of twacha which is exposed to sunlight.
2. Asrikdhara – This is the second layer of skin which carries rakta.
3. Tritiya twacha – The third layer of twacha called Tritiya is rogaadhishtana of Sidhmakilasa.
4. Chaturthi twacha – The fourth layer of twacha called Chaturthi is rogaadhishtana of Dadrukushtha. means light elevation in the skin.
5. Panchami twacha – The fifth layer of twacha called Panchami is rogaadhishtana of Alajivradhi.
6. Shashthi twacha – When there is any injury to the sixth layer of twacha, then the clinical feature is Tamahpravisyati. It is also rogaadhishtana of Arushik.

According to modern science skin is consists of two layers.

- A) Superficial layer is called epidermis= It is formed by Stratified epithelium. Epidermis does not have blood vessels. Nutrition is provided by capillaries of dermis.
- B) Deeper layer- dermis= It connective tissue made up of collagen fibres, fibroblast, histiocytes. It is a vascular layer. Hypodermis or Subcutaneous layer consists of superficial fascia and adipose tissue.

A) Layers of Epidermis

1. Stratum corneum – It consists of cornified dead cells. It acts as a barrier against light, heat, bacteria, chemicals. Etc.

2. Stratum Lucidum- All cells of this layer shiny appearance. This layer is absent in thin skin
3. stratum granulosum- It contains keratin and water proof protein.
4. Stratum spinosum- In this layer, cells have spine like projections and hence this layer is known as prickle cell layer.
5. Stratum Germinativum- This layer has polygonal cells .New cells are constantly formed by mitotic division . Newly formed cells move towards stratum corneum.

B) The **Dermis** is further divided into two regions

1. Papillary region
2. Reticular region

GLANDS ON SKIN = The skin has 2 types of glands

- A) Sebaceous glands.
- B) Sweat glands.

SKIN CELLS- The skin shows 4 types of cells,

- a) Keratinocytes – protection
- b) Melanocytes – Synthesis of melanin
- c) Langerhans cells- Immune responses
- d) Merkel cells – Mechano receptors.

Functions of The Skin-

1. Protection – Against U.V.Rays, mechanical blow, bacteria and toxic substances.
2. Sensory – Touch, pain, pressure, temperature.
3. Storage- Fat, water, chloride, sugar, blood by cutaneous vasodilatation.
4. Synthesis- Vitamin D3
5. Regulation of body temperature- Heat loss by blood by cutaneous vasodilatation, lipid content of sebum prevents loss of heat.
6. Water and electrolyte balance- By excreting water and salt through sweat.
7. Excretory- Excretes small amount of urea, salts and fatty substances.
8. Absorptive – Absorbs fat soluble substances and some ointments.
9. Secretary- Sweat regulates body temperature and water balance. Sebum keeps skin smooth and moist.

Aim:

To study the concept of twacha according to Rachana Sharir

Objective:

- 1) To do a detailed literary review about the concept of twacha according to Rachana Sharir.
- 2) To study the various twacha roga and its correlation with the various layers of twacha.
- 3) To Review twacha in Both Ayurvedic and Modern text.

Material And Method

Review work done and various literature has been collected from Charaka samhita , susruta samhita and vagbhata Samhita and Modern literature and contemporary texts including websites will be reviewed. Several Research works were also reviewed for this discussion purpose.

Discussion:

According Acharya Sushruta There are seven layer of skin, namely as Avabhasini, Lohita, Shweta, Tamra, Vedini, Rohini, Mamsadharawhere as Acharya Charaka mentioned them as udakdhara, asrukdhara, trutiya, chathurt hi, panchami and shasti. Sushruta mentioned the measurement of seven twacha layer from 1/18 vrihi to 2 vrihi

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

Conclusion :

1. According to Acharya Sushruta, there are seven layers of twacha and in modern science also their number is same. The layers of twacha described by Acharya The layers of twacha described by Acharya Sushruta and their names match with the layers of skin anatomically. Acharya Sushruta even described thickness of each layer of twacha, which is not explained in modern science till today
2. This detailed study of Twacha Shareer in both Ayurvedic and Modern sciences provided well established concept of Twacha (skin) in medical science. To know about the Vikriti of Twacha,
3. Thus, in medical science, for better diagnosis, detailed study of Twacha as per Ayurveda aspect as well as Modern concepts are necessary.
4. In Ayurveda, skin is considered a manifestation of inner health. Hence to know abnormalities of skin one must have knowledge about normal state of its structure and function of skin must to be studied in detail. In above literary research

structural and functional aspects of skin according to modern and classical text were studied.

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