

RELATION OF AGNI IN TWACHA VIKAR**Vd. Santosh Tulshiram Londhe^{1*} and Vd. V. E. Gogate²**¹MD Scholar, Kayachikitsa, Government Ayurvedic College, Nanded.²MD Kayachikitsa, Associate Professor, Department of Kayachikitsa, Government Ayurvedic College, Nanded.Article Received on
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Twacha or skin is the largest organ in the human body enveloping the whole body. The thickness of skin varies according to the part of the body it covers. Since, skin is the barrier separating the internal tissues and organs from the external environment; it is more prone to various types of hazards. The skin is affected potentially due to two main reasons. First, that it is exposed to the harmful environmental factors and secondly due to the degenerative and neoplastic changes occurring within its own various cells types which is the reason for majority of skin diseases, as it is generally seen that the most common reason for manifestation of skin diseases is faulty dietary habits. An abnormal change over Twak assessed by Twakpariksha is caused by factors like pollution, mental stress and an impaired metabolism. Ayurveda has described an important factor of digestion and metabolism in our body

as Agni. In present review here is an attempt to explore the concept of Twacha its theory of Utpatti, Prakara, Karya and its relation with Agni.

KEYWORDS: Agni, Metabolism, Skin diseases, Bhrajak pitta.**INTRODUCTION**

Twacha is a vital organ of human body. It is one of the Gyanindriyas which is responsible for Sparsha Gyan. The word Twacha is derived from Twak Savarne Dhatu which means the covering of body. The entire Shadangas remain covered by the Twacha.^[1] It is formed and nourished by Matruja Bhava.^[2] The skin is the largest organ of our body. The unbroken skin is the nature's dressing over the body. A healthy skin is a source of pleasure not to its owner but also to one who looks at it. It is believed in ayurveda that one can enhance internal beauty

by understanding and following basic principles of ayurveda. Ayurveda determines beauty in terms of Prakriti, Anguli Praman and Sara, etc. Sarais the term given to the supreme quality of Dhatu. Dhatusarata is the novel concept described exclusively by Ayurveda. During the description of Dhatusarata types the term Rasasarata is not used in any of the Samhita. It is described as Twaksarata and can be assessed by Twakpariksha.

Review of Literature

Twacha In general Consideration

Acharya Sushruta the father of surgery has very well elaborated the theory of Twacha Utpatti under the heading of Sharir Garbha Vyakdrana. When the fertilization takes place, the fetus develops rapidly through the process of transportation. Twacha is developed like the milk membrane develop at the surface of boiled milk, in chronological order for making of layers.^[3] This suggests that Twacha develops initially in the Garbh and inside it all organs develop. According to Sushrut after fertilization of ovum, Twacha develops just like cream on the surface of milk. In the uterus during development of Garbha, differentiation of the skin takes place and is produced by all three Doshas, particularly by the Pitta Dosha. Twacha develops consecutively seven layers by the synchronized peculiar action of Dosha. According to Charak the six layers of Twacha is formed from Mamsa Dhatu. Nutrients coming from Poshak Mamsa Dhatu are acted upon by Mamsa Dhatwagni and Poshya Mamsa is formed along with Updhatu Vasa and six layers of Twacha.^[4] Acharya Vagbhata described the formation of Twacha due to pak of Rakta Dhatu by its Dhatvagni in the fetus. After Paka it dries up to form Twacha, just like the deposition of cream over the surface of boiled milk.^[5] Vruddha Vagbhata says that Rakta Dhatu plays main role in the manifestation of Twacha.^[6] While commenting on this, Indu says that metamorphosis of Rakta by its own Ushma results in accomplishment of all layers of Twacha. According to Bhavmisha, Twacha is formed by Pachan of Shukra and Ras Dhatu.^[7] According to modern science, skin is a combined form of ectoderm and mesoderm Twacha Utpatti Kala is different according to different Samhitas. According to Yagyavalka Smriti, Twacha is formed in fourth month of foetal life. According to Vagbhata, it is formed in the 6th month of foetal life.^[8] Charak says that Mamsa Dhatu Vruddhi occurs in the fifth month and Varna Utpatti at 6th month, so formation of Twacha will be completed upto 6th month of foetal life.^[9] As per modern medical science, all layers of epidermis is formed in the 4th month of intrauterine life. Twacha is mentioned as Upa Dhatu of Mamsa Dhatu by all Acharyas except Sharangdhara^[10], so nourishment of Twacha is achieved through essence of MamsaDhatu Twacha is mentioned as Mala of Majja

Dhatu.^[11] According to Charaka, third layer of skin can be considered as the site of Varana. But it is manifested through the Avabhasini layer. Chaya circumscribes the Varna and can be observed only from nearby.^[12] First layer Udakdhara is concerned with regulation of water balance. Second layer Asrugdhara is rich source of blood.

Twacha Vikar

Raktadi dhatus and twacha are said to be Shakha and it is the bahya roga marga. This bahya roga marga is the main seat of manifestation of raktadushtijanya roga.^[13] Dushta rakta circulates in all parts of the body and manifests the symptoms according to the virulence of doshas. Normal rasa and agni are able to form rakta.^[14] The tissues in the body have the selective action to pick their nutrients. When the ingested food is correctly processed for assimilation, wholesome poshakansha of rasa is formed. The main entity facilitating the process of digestion is Jatharagni. Proper digestion of nutritious food and its absorption in body depends on balanced state of jatharagni and pachak pitta. Agnimandya is said to be the chief reason for origin of all diseases. When the functioning of pitta is hampered by any external cause like viruddhahar it further vitiates agni and this in turn leads to excessive doshaprakop. This doshaprakopa again causes agnimandya and when this cycle continues there is constant formation of ama which contaminates the rasa poshakansha. With the parallel dysfunctioning of dhatvagni, there is further contamination of the rakta poshakansha making it lose its normal properties.^{REF} The pradushit rakta so formed along with the vitiated doshas adopt tiryak gati thereby circulating all over the body. There is vitiation of subsequent dhatus and by the virtue of sthansamshraya there is sanga of prakupit doshas at skin level giving rise to various skin lesions.

Relation of Twacha with swasthya

During the description of Dhatu Sarata types the term Rasa Sarata is not used in any of the Samhita. It is described as Twaksara. Dalhana clarified that in the term Twaksera the word Twak means the Rasa underneath the Twacha.^[15] Probably it is due to the fact that the functions of the Rasa Dhatu, i.e. the Preenana, is to be best manifested on Twak. It makes the skin healthy and maintains nutritional state of the body. It suggests the supreme qualitative and functional state of Rasa Dhatu. It can be assessed by Twak Pariksha. Hence, Rasasara and Twaksara are used as synonyms of each other. Individuals having excellence of Twak or skin are characterized by Snigdha Twacha (unctuous, oily), Shlakshna Twacha (smooth), Mridu Twacha (soft), Prasanna Twacha (fresh in appearance), Sukshma, Alpa, Gambhir, Sukumar

Loma (having very fine clear, less numerous, deep rooted and tender body hairs.) and Suprabha Twak (having natural glow over it). Such individuals are endowed with Sukh (happiness), Saubhagya (good fortune), Aishwarya (prosperity), Upbhoga (enjoyment), Buddhi (good intellect) Vidhya (knowledge), Arogya (health), Praharsha (cheerfulness and happiness seen on face) and Awushatvan (longevity of life).^[16] Rasa Sarata can be easily determined by Twak Pariksha. A healthy skin reflects the healthy physiological state of body which in turn depends on excellence state of Rasa Dhatu. Any disturbance in Rasa Sanvahana (related to Rasavaha Strotas, Vyana Vayu), its unusual impaired metabolism (related to Rasdhatwagni) and most important Prakrut Rasa Dhatu formation (related to Jatharagni, Panchbhutagni and Samana Vayu) leads to abnormal changes over Twak.

Correlation of Agni and twacha vikar according to modern science^[17, 18]

It is mentioned by Acharyas that if the ingested food remains idle in the amashaya and is not being acted upon by jathargni to its optimum, it converts into ama and later it attains shuktatva and hence it becomes equivalent to visha. This concept of visha in this context can be understood in precise with the help of concept of antigen antibody reaction and complement system activation in modern science. The term complement refers to system of factors that occur in normal serum and is activated characteristically by antigen antibody reaction and which subsequently mediates a number of biologically significant consequences.^[8] The biological activities of this system affect both innate and acquired immunity far beyond the concept of antibody mediated lysis of bacteria and erythrocytes. Complement is normally present in the body in an inactive form but when its activity is induced by antigen antibody combination or other stimuli, its components react in a specific sequence as a cascade. Complement is a complex of nine different fractions C1 to C9. The erythrocyte antibody complexes along with C components react in a sequence EAC 14235. The cascade can be triggered of by three parallel pathways of which the classical pathway requires specific immune reaction for activation. The first step of this pathway is binding of C1 to antigen antibody complex followed by splitting of C4 and cleaving of C2 in the presence of magnesium ions giving rise to C3 convertase. Once C3 activation occurs the subsequent steps are common to all. It is the most important phase of the process as the membrane attacking phase begins at this stage. With C3 activation as the centralized point of reaction, the three pathways converge at the membrane attacking complex. This MAC forms a large channel through membrane of the pathogen due to which the cell by virtue of diffusion of free ions loses its osmotic stability and is killed by an influx of water and loss of

electrolytes. The complement mediates immunological membrane damage, amplifies the inflammatory response and participates in the pathogenesis of certain hypersensitivity reactions.

Hence it can be said that the toxins which are generated due to the process of formation of ama, enter the circulation because of which the tissues lose their resistance and become prone to bacterial invasion. The reactions so occurred give rise to tissue damage. By the virtue of sthanvaigunya, the skin associated lymphoid tissue is affected due to which histamine secretions suddenly spurt in the circulation. The outcome of this whole process is manifested on the skin in the form of various skin lesions.

DISCUSSION

In the review of previous studies, it was found that for the good lustrous and healthy skin the Agni should function properly. Agni is the term given in ayurveda for the whole process of energy liberation through digestion at the level of GIT and metabolism at the tissue level. Digestion, metabolism and assimilation that is whole process of biological conversion and utilization of energy is symbolized by the term Agni. The term Agni not only includes Jatharagni but also Bhutagnis and Dhatwagnis. power of Agni determines the quantity of food to be consumed. Factors responsible for conversion (i.e. digestion and metabolism) of ingested food into appropriate Dhātu are grouped under term Agni according to Arundatta, there are 13 types of in the body. Jatharagni looks after the function of food digestion and absorption at the level of GIT (i.e. conversion of consumed food into lymph) which is termed as Avasthapak. Bhutagnis are 5 in no's (i.e. Prithwi, Aap, Tej, Vayu and Aakash.). It turns all the Panchbautic Aahar consumed to separate entity according to their Mahabutadhikya in the liver (i.e. conversion of heterogeneous substances to homogenous substances) which is termed as Nishtapak According to Vagbhatacharya, Jatharagni ansh located at specific Dhātu known as Dhatwagni of that Dhātu. These Dhatwagnis are in their own tissues according to its own Srotas either to form new tissue or deliver its function. Dhatwagnis acts upon appropriate Dhātu poshakansh present in a potential form in an Ahar Rasa (food after intestinal digestion) and produce Prasad and Kitta bhaga at the tissue level i.e. synthesis and breakdown of tissues, which is termed as Dhatwagnipaka.

Based on the literature review and discussion the following conclusions can be drawn. For the Prakrut formation of Rasa Dhātu, there should be Samyak digestion of Panchbautik Aahar by the Jatharagni into Vijatiya Dravyas at the level of GIT (Avasthapak), Samyak final

digestion of absorbed Aahar Rasa by Panchbhutagni into Sajatiya Dravyas at the liver (Nishtapak) and Samyak metabolism and assimilation of Rasa Dhatu into Sara and Kitta Bhaga by Rasadhatwagni at the tissue level (Rasdhatwagnipak) is essential. Acharya Charaka, in his Chikitsa Adhaya 15 explained signs and symptoms of proper functioning of Agni. In that he mentioned that, if Agni is functioning proper in a person, then his skin is having good luster and texture. Thus, Agnis play a major role in maintaining Twaksarta. So, one can achieve a healthy and lustrous skin by maintaining Agni in balanced state.

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