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## CONCEPT OF *TRIMARMA* IN *AYURVEDA* AND IT'S IMPORTANCE

<sup>1</sup>Dr. Neelam Sagwan <sup>2</sup>Dr. Naveen kumar

<sup>1</sup>Assistant professor, Dept of Sharir Rachana, Shekhawati Ayurved college, Pilani

<sup>2</sup>Ayurveda medical officer, Rampura beri, Churu

Corresponding author: Dr. Neelam Sagwan , Dept of Sharir Rachana, Shekhawati Ayurved college, Pilani

**Abstract:** The science of *Marma* (vital point), i.e., *Marma Vijyaniam* is an extraordinary and dynamic part mentioned in classical texts of Ayurveda that has a tremendous value while performing surgery. According to Ayurveda, knowledge of the position of *Marma* and *Marmabhighata* (injuries to vital points) symptoms is essential before performing any surgical treatment. Here in this article an attempt is made to highlight the importance of *Trimarma* in *Ayurveda*.

Keywords: *Marma*, *Trimarma*, *Hridaya*, *Basti* And *Shira*

**Introduction:** *Marmas* are certain vital points spread all over the surface of the human body. These are the places where the *Prana* (life force) is said to be situated. *Marima*, definitions of *Marmas*, types of *Marmas*, symptoms produced after injuries to these *Marmas*, are described by nearly all Ayurvedic texts, especially in “*Trimarmiya Siddhi*,” “*Trimarmiya Chikitsa*,” chapters in Charaka Samhita, “*Marma Vibhaga*” chapter in *Ashtanga Sangraha*, and “*Shariravichaya Sharir*” chapter in *Kashyapa Samhita*. *Marma* has been classified based on regions, along with their specific effects on both body and mind. When manipulated, *Marmas* can alter both the organic functions and structural conditions of the body. Little injuries to these *Marma* points or anatomical areas can be fatal comparing with major injuries at anywhere else in the body, so detailed knowledge of these *Marma* points is crucial for a physician. In Ayurveda, a 107-point *Marma* system was developed by an ancient Indian surgeon *Acharya Sushruta* for

helping a surgeon to safely operate on the human body. In the ancient era, even after the best treatment available at that time, some sort of disability is sure to remain at end of the therapy. An attempt has been made to compile, critically analyse the fundamental concept of *Trimarma* on the basis of its derivation, scientific and literary review available in our classics with objective of its importance.

**Etymology of Marma:** The word *Marma* has its origin from Sanskrit root “*Mring Marma*” means causing death. . In brief *Marma* indicates that the vital points which can give rise to death<sup>1</sup>.

**Structure and composition of Marma:** *Marma* contain *Soma(Kapha)*, *Marut(Vata)*, *Teja(Pitta)*, *Sattva,Rajas*, *Tamas*, and *Bhuta Atma*. Hence, a person, on injury to the *Marma* may not be alive<sup>2</sup>. *Charaka* explained that *Marma* are such points where the sense of pain is felt more intensively compared to other parts of the body, because *Marma* are closely related to *Chetna Dhatu*<sup>3</sup>. *Acharya Charaka* has given importance to *Vasti*, *Hridaya* and *Murdha* among all the *Marmas*<sup>4</sup>. *Marma* of the trunk are more vital than the *Marma* of the extremities, as the extremities are connected to and depend on the trunk. Even among the *Marma* of the trunk *Hridaya*, *Vasti* and *Shiras* are more important<sup>5</sup>. Hence *Acharya Charaka* has given importance to these three *Marma* among 107 *Marma* because *Prana* are situated in these three *Marma*. Hence the *Dosha* affecting these places also affect the *Prana*. Thus, a person should always protect these three parts carefully<sup>6</sup>. **DASHA PRANAYATANA (Jivita Dhama):** *Prana-ayatana* means the residing place for the *Prana*. There are ten such places in the body where *Prana* reside. they are-*Shanka*, *Marma Traya (Hridaya, Vasti, Shiras)*, *Kantha*, *Rakta*, *Shukra*, *Ojas* and *Guda*<sup>7</sup>. This shows the importance of *Trimarma* as explained by *Acharya Charaka*.

#### HRIDAYA IN AYURVEDA:

**Derivation of term Hridaya** *Hridaya* is derived from three words: *Hr:* *Harana* means collection of *Rasa Rakta* from the body. *Da:* *dana* means distribution or supply of *Rasa Rakta* to all the *Dhatu* of the body. In *(ya):* *ayana* means expansion and contraction movements. Thus, the term *Hridaya* means structure that collects *rasa rakta* from the body, supply it to all the *dhatu* of the body and conduct expansion and contraction movements. It is a divine centre of *Chetna* as per *Acharya Sushruta*<sup>8</sup>. It is one among *Dash Pranayatana* as *Acharya Charaka*<sup>9</sup>.

**Embryological development of Hridaya:** It is originated from the essence of *Shonita* and *Kapha*<sup>10</sup>

**Anatomical position :** Below and to the left side of *Hridaya*, *Pleeha* and *Phupphusa* are present and to the right side *Yakrit* and *Kloma* are present<sup>11</sup>. *Hridaya* is located between the breasts in thorax<sup>12</sup>. The *Moola* of *Pranavaha* and *Rasavahasrotas* are *Hridaya*<sup>13</sup>. *Acharya Charaka* has included *Hridaya* one among 15 *Koshtangas* which means that it is the organ that is close to the *Kostha* (alimentary canal)<sup>14</sup>. In *Trimarmeeya Adhyaaya*, *Charaka* has described three *Marma* viz. *Hridaya Shira* and *Vasti*<sup>15</sup>. Here *Shira* is already mentioned so by *Hridaya* it is considered as heart. *Acharya Vagbhatt* has considered *Hridaya* as

*Moola of Siras*<sup>16</sup>. *Charaka* has considered it as centre of *Ojah*. *Acharya Charaka* has considered it as *Dashamahamoola*<sup>17</sup>. It is a structure which resembles a *Punḍarikaṇa*, *Kamalamukulakaram* (lotus) in inverted position. When body is in active phase it expands and contracts in inactive phase<sup>18</sup>. It is site of *Satvadi Guṇa*, placed in between two breasts in the thoracic region near the opening of stomach<sup>19</sup>. It is site of *Chetana*, *Mana*, *Buddhi*, *Indriya*, *Pradhana ojas*<sup>20</sup>. *Sadhaka pitta*, *Vyana Vayu*, *Avalambaka Kapha* resides in *Hridaya*<sup>21</sup>. It is the seat for ten principle *Dhamanis*, *Prana*, *Apana*, *Manas*, *Buddhi*, *Chetana* and *Mahabhutas*, like the spokes are attached at the centre of the wheel. Hence, *Hridaya* is the centre for all of them<sup>22</sup>. It is site of *Ojas*<sup>23</sup>, it is attached with 10 vessels which conduct *Ojas*. It is called *Mahamula* or *Mahaphala*. 6. In the context of circulation of *Rasa*, 24 *Dhamani* are getting into the *Hridaya*. In the context of *Dhamani Sharir*, 10 *Urdhvavahi Dhamani* is getting reach to the *Hridaya* and further they gets divide into 30 *Urdhvavahi Dhamani*<sup>24</sup>. It is considered as *Raktashaya*, present in *Uraḥ* region<sup>25</sup>.

FEATURES OF HRIDAYABHIGATA: Injury of *Hridya* results in *Kasa* (cough), *Shwasa* (respiratory problems), *Balakshaya* (weakness) *Kanthashosha* (weakness of throat) *Kloma Karsha* (emaciation of kloma), *Jihwanirgama* (protruded tongue) *Mukha Talu Shosha* (emaciation of face and palate) *Chittasha* (unconsciousness).

Importance of *Hridaya*: As *Hridaya* is the seat for the ten principle *Dhamani*, *Prana*, *Apana*, *Manas*, *Buddhi*, *Chetana* and *Mahabhuta*, like the spokes are attached at the centre of the wheel. Hence *Hridaya* is the centre of all of them.

*Shiras* in *Ayurveda*: The term *Shiras* is derived from the root *Sru* with *Asun Dhatu* which is meant in the following subjects : *Acharya Charaka* in *Sutra Sthana* was the first to frame the definition of *Shiras* where he quotes *Shiras* is a structure or place situated at top in the body and there in resides the *Prana* – soul of the livings with all the senses. So it is the best of all the organs<sup>26</sup>. This definition of *Shiras* promotes us to believe *Shiras* as Brain. Though *Shiras* is counted within the *Trimarmas Achraya Sushruta* has not shown any *Marma* like *Shiras* differently. It means none of our classics have designated any separate anatomical position to *Shiras* as a *Marma*. Though there is no any *Marma* pointed out in our text as *Shiras* but it is a group of *Marma* that forms the *Shiras Marma*. There are 37 *Urdhvajatrugata Marma* – *Marma* above the clavicle that are designated as *Shiras Marma*. Out of these 37 *marmas*, 17 *Marmas* are *Sadyahpranahara*.

The following underlines the names and types of *Marma* included in *Shirogata Marma* by *Acharya Sushruta*<sup>27</sup>

- (1) *Adhipati 1 Sandhi-Marma Sadyahpranahara*
- (2) *Apanga 2 Sira-Marma Vaikalyakara*
- (3) *Avarta 2 Sandhi-Marma Vaikalyakara*
- (4) *Phana 2 Sira-Marma Vaikalyakara*
- (5) *Sthapani 1 Sira-Marma Sadyahpranahara*
- (6) *Shankha 2 Asthi-Marma Sadyahpranahara*
- (7) *Shrunghata 4 Sira- Marma Sadyahpranahara*
- (8) *Simanta 5 Sandhi-Marma Kalantarapranahara*
- (9) *Utksepa 2 Snayu- Marma Vishalyaghana*
- (10) *Vidhura 2 Snayu-Sira- Marma Vaikalyakara*

*Kumarashira Bharadvaja* emphasized that head of the fetus develops first, because it is the site of all the important *Indriyas*<sup>28</sup>. *Vagbhaṭa* has described ten “*Jivita Dhatu*<sup>29</sup>” in which *Shiras*(head), *Hridaya* (heart), *Basti* (urinary bladder) are included. *Shira* upholds the *Indriyas*, *Indriyavaha* and *Pranavaha* Srotas, as the sun rays are the parts of sun.

**FEATURES OF SHIROABHGHATA:** Injury of the *Shiras* results into *Manyasthambha*(rigidity of the neck), *Ardita*(facial paralysis)*Cakshu vibhrama*(giddiness)*Tamas*(darkness before eyes),*Udweshtana*(squeezing pain)*Cheshta* nash(loss of motore functions) *Kasa*(cough)*Shawasa*(respiratory difficulty) *Hanugraha*(of the jaw), *Muka*(dumb) *Gadgada*(stammering), *Akhgshi Nimeelana*(ptosis), *Ganda Spandan*(vibration of the cheek), *Jrimbhana*(yawning) *Lalasarava*(salivation), *Swrahani*(loss of voice) and diseases of face and tongue.

**Importance of Shiras:** *Shiras* upholds the *Indriya*, *Indriyavaha* and *Pranavaha Srotas*, as the sun rays are the parts of the sun<sup>30</sup>. The *Shiras* is known as the *Uttamanga*, as all the *Indriya* and *Prana* are seated in it. Hence, *Shiras* should be protected always with all efforts<sup>31</sup>.

*Vasti* in Ayurveda:

Etymology: The word *Vasti* has been derived from the root "Vas" after adding the suffix "Tich" *pratyaya*. According to *Vacaspatyam* meanings of the root 'vas'<sup>32</sup> *Vasu Nivase*- Means to reside, to stay and to dwell. *Vas Acchadane*- Means to cover / to coat *Vas Snehacchadana Praharaneṣu*- Coating or covering of sneha for the elimination The *Basti* is a hollow structure made by the *Vayu* entering in the combination of essence of *Rakta* and *Kapha* with the help of pitta. *Acharya Sushruta* speaks that the hollow shape is formed when the essence part of the above three is inflated by the repeated action of *Vayu*<sup>33</sup> *Basti* is derived from *Matṛuja Bhava*- the maternal constituents<sup>34</sup> Location: *Basti* has been included under the *Koṣṭhanga* by all the *Acharyas*<sup>35</sup>. *Basti* is surrounded by *Nabhi*, *Priṣṭha*, *Kati*, *Muṣhka*, *Guda*, *Vankṣhana* and *Shepha*<sup>36</sup>. *Basti* is surrounded by *Sthulaguda* (Rectum), *Muṣka* (Scrotum), *Sevani* (Scrotal ligament), *Shukravaha naḍi* (Seminal ducts) and *Mutravaha naḍi*(Ureters)<sup>37</sup> According to *Vagbhaṭa*, the *Sthana* of *Basti* is in *Kaṭi Pradesha*. *Acharya Vagbhaṭa* too described the seat of *basti* in the pelvic cavity<sup>38</sup>. *Acharya Sushruta* also places *Basti* in pelvic cavity in the chapter of *Marma*<sup>39</sup>. Further in the chapter of *Ashmari Chikitsa* he states that in females the uterus is situated very near to the urinary bladder posterior position<sup>40</sup>. *Sushruta* has mentioned *Basti* as one among the *Pratyāṅgas* of the body; is *Alabu* shaped (shape of a gourd) and covered by *Sira* (veins) and *Snayu* (ligaments) from all sides. The organ is extremely thin in structure (*Tanutvaka*) i.e. thin walled. This organ is provided with a single aperture or opening and lies with its mouth downward. Further the inner relation between *Basti* and *Basti Sira*, *Pauruṣa Granthi*, *Vṛiṣhaṇa* and *Guda* is also mentioned and it is situated in the pelvic cavity<sup>41</sup>. The size (*Pramaṇa*) of *Basti Marma* is equal to the pit of one's own palm<sup>42</sup>. According to *Vagbhaṭa*, the shape of *Basti* is *Dhanurvakra* i.e. crooked like a bow having a downward opening<sup>43</sup>. *Aṣṭanga Sangraha* explains that *Basti* is composed of *Rakta* and *Mamsa Dhatu* and its opening is surrounded by *Sushira Snayu*<sup>44</sup>. *Ḍalhaṇa* says that *Basti* lacks *Mamsa* and *Medadhātu*<sup>45</sup>

Importance of *Basti*: *Basti* is considered as *Mulasthana* of *Mutravaha Srotas*. *Acharya Sushruta* has explained *Basti* in relation with process of Urine formation to its storage<sup>46</sup>. He quotes giving the importance of *Basti* as an organ where (The Soul) resides. *Acharya Charaka* also quotes the importance of *Basti* as a *Trimarma* saying that it means that the region named *Basti* is in the middle of *Sthula Guda*, *Muṣhka*, *Sevani* the *naḍi*(channels) transporting *Mutra* and *Shukra*. It acts as the Reservoir of *Mutra*. As different rivers fill the ocean in similar fashion all the *Ambuvaha Srotas* (channels) transporting water fill the *Basti*<sup>47</sup>. Similarly in *Aṣṭanaga Sangraha* *Acharya Vagbhaṭa* during the description of surgical treatment of *Mutra Ashmari* quotes that an ill practiced surgeon would result into death of the patient undergoing the surgery by injuring the *Mutravaha Srotas – Basti*<sup>48</sup>.

FEATURES OF VASTIABHIGHATA<sup>49</sup> :Injury of *Basti* results into obstruction of the flow of *Vata*(flatus), *Mutra*(urine), *Varchas*(faeces), pain in *Vankshana*(groin), *Mehana*(penis or pubic region),

*Basti*(bladder), *Kundala*(bladder abnormality), *Gulma*(abdominal tumor), *Anila – Ashthila*(*vataja* tumor), and many other diseases.

IMPORTANCE OF MARMANASHA: As the base is destroyed, the dependent is also destroyed. Likewise the destruction of any of the three *Marma* may destroy the *Prana*. Hence one should protect these three *Marma* from external as well as internal injuries<sup>50</sup>.

Discussion: Understanding the Concept of *Marma* is tedious. *Acharyas* had very well knowledge of *Marma Sharir* i.e.detailed information regarding injuries and their prognosis on every vital part of body. The indepth understanding of the word *Marma* was evident in ancient time, but there were no adequate techniques to make out their original structural aspects involved in particular *Marma Sthana*.The knowledge of these points is on the basis of *Pratyakṣa*, *Anumana* and their experiences. In *Trimarmiya Chikitsa Adhyaya* and *Trimarmiya Siddhi Adhyaya*, *Charaka* has given importance to these three *Marmas*: *Shiras*, *Hridaya* and *Vasti*.The *Trimarmas* are the main governing points of life. Beside *Prāṇa* – the soul; *Marma* contain the *Triguṇas* – *Sattva*, *Raja*, *Tama*, *Soma*, *Maruta*,*Bhuta* and *Atma*. They act as *Sadyahprāṇahara Marma* and so if injured leads to instantaneous death. External trauma on the *Marma* in turn creates disturbance in the homeostasis of body. Internal trauma caused by the vitiated *Tridoṣa* generally affects *Trimarma*. Any disease afflicting to *Prāṇayatana*, complexity of disease and prognosis in *Trimarma* is more severe than others. For these reason, *Trimarma* highlighted than the others. *Charaka* said these *Trimarma* as root of life. Being a physician he has given importance to these *Trimarma*.*Chakrapāṇi* explains nothing other than these *Trimarma* have capability of hosting body. *Shiras* is an organ or structure located at the topmost region of the body. *Shiras* is a very important structure or part of the body as it is location of brain and other important organs like senses etc. So, if injured or diseased can create an emergency or prove fatal. The Synonyms like *Uttamaṅga*, *Aditya* directly clarify its important as *Marma*. While the synonyms like *Murdha* glorify its action as a *Marma*. It is said as an organ, injury to which leads to fainting and giddiness. When *Mastiṣka* is used as its synonym it denotes brain and it is widely accepted as a vital spot of the body – *Marma*. Hence, it may be considered as skull with brain. *Hridaya Marma* is explained as *Sadyopraṇahara* and is related *Mula* of *Pranavaha* and *Rasavaha Srotas*. Any trauma to heart leads to emergency and immediate death so it explains that heart is important place for *Rasa Rakta Saṁvahana*. It is a site of *Chetana* and tripod of life. Hence, it may be considered as heart. *Vasti* denotes an organ, which is a reservoir of urine as it is basically a receipted having soft and elastic nature. In the context of *Marma Acharya Sushruta* has explained *Vasti* as an organ comprising of little *Mamṣa* and *Shoṇita*. It's situated inside the *Kaṭi* region and as a reservoir of *Mutra*. The most vulnerable viscera injured during pelvic fracture is urinary bladder.Hence, it may be considered as urinary bladder.

**Conclusion:** Though classics have explained 107 *Marmas* in detail, *Charaka* has emphasized and given importance to only *Trimarma Hridaya, Shiras* and *Vasti*. They are *Sadhyopraṇahara* in nature as trauma results in immediate death of person. Just as *Soma, Surya* and *Anila* does *Visarga Kriyas* respectively for sustaining the external world, similarly *Kapha, Pitta* and *Vayu* does the same activity respectively for maintaining the body. Similarly *Hridaya, Vasti* and *Shiras* does the above activities respectively for sustaining life. In present scenario also, brain and heart are included in tripod of life. At the time of traumatic injuries and emergency, CPR is recommended for basic life support in which heart and brain are resuscitated. Brain death is the confirm sign of death. For these reason, *Trimarma* highlighted than the others. This article can be helpful for better understanding the concept of *Trimarma* in Ayurveda and its importance.

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