

REVIEW OF TALHRIDAYA MARMA WITH THE HELP OF CADAVERIC DISSECTION

Sachin Kumar Sharma^{1*}, Renu Tripathi², Ashok Kumar Dwivedi³ and Mini K. V.⁴

¹P.G. Scholar, Deptt. of Rachana Sharir.

²Professor & H.O.D. Deptt. of Rachana Sharir.

³Professor of Rachana Sharir.

⁴Professor, Deptt. of Rachana Sharir V. Y. D. S. Ayurved Mahavidyalaya, Khurja.

Corresponding Author: Sachin Kumar Sharma
P.G. Scholar, Deptt. of Rachana Sharir.

Article Received on 03/07/2021

Article Revised on 23/07/2021

Article Accepted on 13/08/2021

ABSTRACT

Ayurveda is an ancient system of medicine. It is accepted as the oldest science of medicine as the description of ayurveda medicine is found in Vedas (5000 B.C.). 'MARMA' is one of the important subject of Ayurveda, Acharya Charak has delt its clinical significance in "Trimarmeeeya Siddhi Adhyaya" under three headings 'Vasti, Shira and Hridaya. In olden days Vaidya had to deal with more emergencies during the time of war and it might have been the reason why Marma was given outmost importance in our Samhitas. Marma are the vital points when affects, leads to termination of life. Thus from surgical point of view knowledge about Marma is highly important. The details of Marma are present not only in our scriptures but also in Vedas, Upanishad, Itihaasa and Puranaas. Talhridaya Marma is a type of Mansa Marma which is situated at the centre of Hastatala and Paadatala.^[1] They are four in number which is located one each in all four limbs. It is also included in Sakhagata Marma and Kalaantara Pranahara Marma. Any injury to Talhridaya Marma leads to Ruja (severe pain) and Marana (death) over a period of time gradually.^[2] In this present paper, an attempt is made to explore the concept of talharidya marma is an introductory from with special reference to cadaveric dissection in a systemic and well organized manner to know its importance in human body and in rachana sharer.

KEYWORD: Marma, Talhridaya marma, Cadaveric dissection.

INTRODUCTION

Talhridaya Marma is a Mansa Marma which is situated at Hasta(hand) and Paada(foot). The etymology of the word Talhridaya can be assumed that it means Hridaya^[105] According to Acharya Sushruta they are four in number, one each in all four limbs. Acharya Vagbhata also stated the same.

The exact location of Talhridaya Marma in the upper limb is in the middle of the palm, on the line of middle finger in both hands and in the lower limb it is located in the middle of sole, on the line of the middle toe in both foot. Sushruta Acharya explained Marma is aggregation of Mansa, Sira, Snayu, Asthi, Sandhi in which Prana dwells by nature.^[3] The redactor of Sushruta Samhita, Dalhana has opined Marma is the one which cause death.^[4] After injury the pain sensation will be very high when compare with other parts of the body, as because it is ChethanaSthana, told by Acharya Charaka.^[5] Vagbhata in Astanga Hridaya has defined Marma is the site where Mansa, Sira Snayu, Asthi, Sandhi and

Dhamani confluence. He also said that the sites which are painful, tender and show unbearable throbbing after getting afflicted with an injury should be considered as Marma.^[6]

Talhridaya marma is included into various categories as

- 1- Shakhagata marma
- 2- Mansa marma
- 3- Kalantra pranhara marma

Meaurement

Talhridaya Marma occupies a space of ½ Angula Pramana which is approximately equal to the horizontal dimension or breadth of middle segment of one's own middle finger.^[7]

Effect of injury

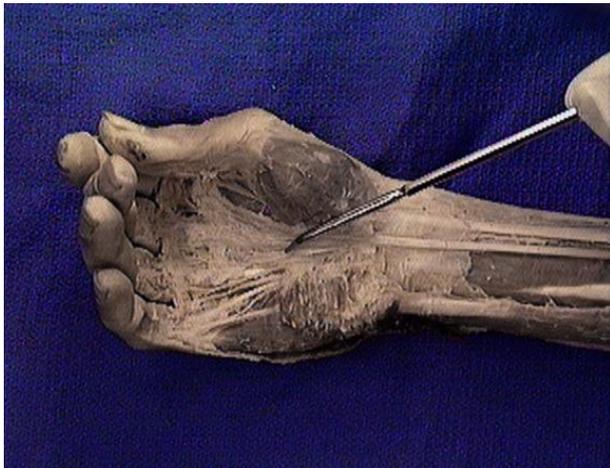
Marmas are said to be "SHALYA VISHAYAARDHA" By Acharya Sushruta because persons die immediately if they are injured; even if some of them survive due to

surgeon's efficiency, they definitely become victim of disability.

Any injury to Talhridaya Marma leads to Ruja followed by death.^[13] which happens gradually in due course of time. If the injury is in the upper limb, the symptoms may be predominantly seen in the upper portion of the body. If the injury is in lower limb the symptoms are seen predominantly in the lower portions of the body.

Dissection of hand

A horizontal incision was given at the distal crease of front of the wrist and a vertical incision was given from the centre of above incision through the palm to the centre of the middle finger. Another horizontal incision was given along the distal palmar crease with an oblique incision starting 3 cm distal to vertical incision given and extend it to the tip of the distal phalanx of thumb. The flaps of skin of palm was reflected. After reflection of skin Superficial fascia was identified.



The Ulnar nerve and vessels, palmar cutaneous branch of the median and ulnar nerves and the tendon of Palmaris longus muscle were found to pass superficial to it. Palmaris Longus was found inserted into the distal half of flexor retinaculum and the apex of palmar aponeurosis. Palmar Aponeurosis is a thick triangular portion of deep fascia that lies in the central region of the palm. Its apex at flexor retinaculum, base near the head of metacarpals and its four slips were identified. Radial Artery passes through the anatomical snuff box and divides to form the superficial and deep arches.

Dissection of sole of foot

The incision was given from heel through the root to the tip of the middle toe. Skin and Superficial fascia was reflected to each side of the sole.

In dissection of sole of foot the following structures were found from superficial to deep.

Plantar aponeurosis- This layer was extremely thick and found to be attached posteriorly to medial process of calcanean tuber.



Medial Plantar Nerve- branch of tibial nerve, observed to give branches to abductor hallucis and flexor digitorum brevis, then it was running forwards between them.

Flexor Digitorum Brevis- Next to the plantar aponeurosis and plantar vessels, flexor digitorum muscles has been observed. It had its origin from three regions- medial tubercle, plantar aponeurosis, medial and lateral intermuscular septa. Lateral Plantar Nerve- was passing in between flexor digitorum brevis and flexor accessorius, giving branches to flexor accessorius and abductor digiti minimi.

Deep Plantar Arch- contributed mainly by the lateral plantar artery.

RESULT

After dissection of hand and foot of cadavers, I observed the important structures like skin, superficial fascia, arteries, nerves & muscles along with bones and joints which are placed in a compact manner. I observed the each and every structure are important when the hand and foot are concerned according to function.

When I looked for the structures related with Talhridaya Marma which was explained in the centre of palm of hand and in the center of sole of foot. I met with the important structures as Aponeurosis, the arches formed by the arteries & the nerves and their branches, bone & joints along with number of muscles in both hand and foot. Talhridaya Marma is considered as Mansa Marma by our Acharyas. There are so many muscles found during dissection, may be because of this Talhridaya Marma is considered under Mansa Marma even though there are so many nerves, vessels, tendons, bones, joints and fascia are present in both hand and foot.

DISCUSSION

The etymology of the word can be assumed that it means 'Hridaya'(center) of the Hastatala and Paadatala. So derived as Talhridaya Marma. Talhridaya Marma are four in number. The region of this Marma is the centre of palm in straight line with the middle finger and the

centre of sole in straight line with the middle toe in both hand and foot respectively. It occupies a space of $\frac{1}{2}$ Angula dimension.

Talahridaya Marma is included in Mansa Marma because the structures passing through the region are mainly **muscles** even though there are so many nerves, vessels, tendons & ligaments. Clostridial infection can cause **gas** Muscle tissue is the best culture media for growth of bacteria but here, ischaemic muscle favours the bacterial growth being anaerobes which produces the severe painful condition and its fatal as it leads to shock. After certain period of time, the injury to the region of Talhridaya Marma can also cause **sepsis** and other infections.

CONCLUSION

In hand, the region of Talahridaya Marma is the centre of the palm in straight line the middle finger which contains the superficial palmar arch, tendons of the muscles of flexor and extensor compartment of forearm, oblique head of adductor pollicis, second and third lumbricals, second and third palmar introsseal and nerves of the hand shielded by palmar aponeurosis, superficial fascia and a thick layer of skin.

In foot, the region of **Talahridaya Marma** is the centre of the foot in straight line with the middle toe which contains the muscles of flexor, extensor compartment of sole and oblique head of adductor hallucis and nerves of the foot shielded by plantar aponeurosis, superficial fascia and a thick layer of skin.

REFERENCES

1. Sushruta Sanhita of Maharishi Sushruta edited by Ayurvedic-Tatva Sandipika by Kaviraj Ambikadutta Shastri A.M.S. forward by Dr. Pranjivan Manekchand Mehta printed by Chaukhamba Sanskrit Sansthan, Varanasi, edition reprinted, 2014; 1: 6-31.
2. Sushruta Sanhita of Maharishi Sushruta edited by Ayurvedic-Tatva Sandipika by Kaviraj Ambikadutta Shastri A.M.S. forward by Dr. Pranjivan Manekchand Mehta printed by Chaukhamba Sanskrit Sansthan, Varanasi, edition reprinted, 2014; 1: 6-31.
3. Sushruta Sanhita of Maharishi Sushruta edited by Ayurvedic-Tatva Sandipika by Kaviraj Ambikadutta Shastri A.M.S. forward by Dr. Pranjivan Manekchand Mehta printed by Chaukhamba Sanskrit Sansthan, Varanasi, edition reprinted, 2014; 1: 6-15.
4. Sushruta Sanhita of Maharishi Sushruta edited by Ayurvedic-Tatva Sandipika by Kaviraj Ambikadutta Shastri A.M.S. forward by Dr. Pranjivan Manekchand Mehta printed by Chaukhamba Sanskrit Sansthan, Varanasi, edition reprinted, 2014; 1: 6-3.
5. Charaka Samhita of Agnivesh, elaborated by Acharya Charaka and Drdhabala, edited with

Charaka Chandrika hindi commentary, by Dr. Brahmanand Tripathi forward by Dr. Ganga Sahay Pandey, printed by Chaukhamba Surbharati Prakashan, Varanasi, edition, 1997; 1: 9-3.

6. Astanga Hrdayam of Srimad Vagbhata by Dr. Brahmanand Tripathi published by Chaukhamba Sanskrit Pratishthan, Delhi reprinted, 2012; 4: 38.
7. Sushruta Sanhita of Maharishi Sushruta edited by Ayurvedic-Tatva Sandipika by Kaviraj Ambikadutta Shastri A.M.S. forward by Dr. Pranjivan Manekchand Mehta printed by Chaukhamba Sanskrit Sansthan, Varanasi, edition reprinted, 2014; 1: 6-29.