

A REVIEW STUDY OF *MARMA SHARIR* WITH SPECIAL REFERENCE TO ITS CLINICAL IMPORTANCE

¹*Dr. Sandeep Madhukar Lahange and ²Dr. Archana Nivrutti Bhangare

¹Assistant Professor P. G. Deptt of *Sharir Rachana* National Institute of Ayurveda, Madhav Vilas, Amer Road Jaipur 302002.

²Assistant Professor Deptt. of *Kayachikitsa*, P.G. *Ayurvedic* College & Hospital Mandi Govindgarh (Panjab).

Article Received on
15 August 2016,

Revised on 05 Sept 2016,
Accepted on 25 Sept. 2016

DOI: 10.20959/wjpr201610-7163

*Corresponding Author

**Dr. Sandeep Madhukar
Lahange**

Assistant Professor P. G.
Deptt of *Sharir Rachana*
National Institute of
Ayurveda, Madhav Vilas,
Amer Road Jaipur 302002.

ABSTRACT

Marma is very important structure present in the body which causes pain, injury or even death when getting injured. It is defined as a site where there is the meeting point of *Mamsa*, *Sira*, *Snayu*, *Asthi*, and *Sandhi* and where the *Prana* resides. In *Ayurvedic* classics *Marma* is illustrated as the vital point in human body, the injury of which leads to severe pain or may be termination of life. Presents life is very fast and furious causes so many injuries during accidents, sports, and may be during daily activities which lead in to severe pain, injuries, deformity or even death. To overcome these circumstances we must know the vital parts of our body so that we take proper care to secure them from injuries. *Marma* play very important role in making of sports guards, pads, helmets, and other accessories to use in sports to avoid injuries. It

is also helpful while during any surgical procedure by avoiding injury to the adjacent vital point. Every individual must know about the vital parts of our body so that they prevent them from any type injury.

KEYWORDS: *Marma*, vital point, *Marma Vastu*, *Prana*.

INTRODUCTION

Ayurveda is the oldest medical science which deals with physical and psychological health of the human being. In *Ayurvedic* classics vital energy termed as *Prana* which emphasized in equivalence to the subtle life force energy for the existence of mankind. To understanding of the term *Prana* we must need to understanding different structures of the human body. The

term *Prana* is present all over the body, but still its pedigree being embedded in specific location of human composition. Such a gathering of five fundamental human structures that is *Mamsa, Sira, Snayu, Asthi, & Sandhi* is one such distinctive location explained in classics where this vital force energy is residing. These specific locations are explained as a concept of *Marma sharir* in classics

All the *Acharya* gives descriptions of 107 *Marma* and classified into five varieties on the basis of *Marma Vastu* (structure involved), five on the basis of *Parinam* (effect of injury), five on the basis of *Shadang Sharir* (location on the body). *Acharya Sudhruta* explained the definition of *Marma*, various types of *Marma*, structure involved in it, location of the *Marma*, symptoms of *Marma sthan* injury and its management.

Acharya sushruta is very well known for his better contribution in the field of anatomy and surgery. *Sushruta Samhita* is the best one in *Sharira*. He described various terms and concepts regarding human body. *Acharya Sushruta* point out the knowledge of sharir in sharir sthan of sushrut samhita where he explained the concepts like asthi sandhi shadang sharir, Marma etc. all the ayurvedic acharya explained the concept of Marma detail knowledge about Marma has been explained in *Sharir Sthana* of *Sushruta Samhita* in chapter *Pratyeka Marma Nirdesa Shariram*.^[1] The details of Marma are present not only in our scriptures but also in *Veda, Upanishad, Itihaasa* and *Puranaa*.

Marma are the vital points present in the body which causes pain, injury or even death when getting injured. *Marma* is a site where number of tissue gathers together and accounted as vital part. There are total 107 numbers of Marma present in our body. The concept of Marma has been developed during the time of war. In those times a vaidya had to deal with more exigencies during the time of war and it might have been the reason that Marma was given utmost importance in our *Samhita*. Marma are the vital points when afflicted can cause severe pain, deformity, or even death so need utmost care while performing surgical procedures.

Acharya Sushruta has classified *Marma* based on locations and also based on involvement of *Marma Vastu*. *Bhavaprakasha* has defined *Marma* as the meeting place of *Mamsa, Sira, Snayu, Asthi* and *Sandhi* where *Prana* or life resides. He supports the opinion of *Susruta*. *Sarangadhara* has considered Marma s as *Jeevadharani*, where mainly *Praana* resides. These *Marma* gives an idea about particular region where presence of vital points. *Marma* are available in *Samhitha*, but the structures like Muscles, Ligaments, Tendons,

Arteries, Veins, Nerves etc. present in these regions, their anatomical description and their applied aspects needs more clarification.^[3]

Regional anatomy considers the organization of human body as segments or major parts based on form and mass. Applied anatomy provides knowledge of practical application of anatomical knowledge for diagnosis and treatment. Present work is been taken up with an idea of updating early concept *Marma Sharir* in scientific way. Though there may be some differences or lacuna's from now day knowledge but we can have proud on our glorified past of knowledge in every medicinal field especially in *Marma Sharir* Knowledge.

AIMS AND OBJECTIVES

- 1) To introduce and elaborate the concept of Marma as mentioned in *Ayurvedic* literature.
- 2) To understand the concept of *Marma* in scientific way and its clinical utility in present time.

METHODOLOGY

Ancient *Ayurvedic* classics were consulted and compiled references out of them has been collected and Modern text Critically reviewed for said subject to elaborate as well as to understand the concept of *Marma* in scientific way and its clinical utility in present time.

Concept of Marma in Ayurveda

The meaning of the word Marma is, *Jeeva Sthana*". *Shabdhakalpadruma* describes the word *Marma* is derived from, *Mru*" *Dhathu* combined with, *manin*" *pratyaya* which means *Jeeva Sthana* or *Sandhi Sthana*. *Dalhana*, the redactor of *Susruta Samhita* has stated that *Marma* is the vital area in the body, if it gets injured can causesever pain or death.

Acharya Susruta has defined Marma as the anatomical site where *Mamsa*, *Sira*, *Snayu*, *Asthi* and *Sandhi* meet together. Prana dwells at these sites and so they are important.^[2]

Arunadatta, explains that it is called as *Marma* because injury to that particular part brings out miseries equivalent to death.^[4]

Acharya Charaka has says that it is the site of *Chetana*, so the sense of pain will be more in this region compared to other parts of the body.

Charaka explained the *Dasha Pranayatanas*, which are the ten important resorts of *Prana* in two contexts. These are the two *sankha*, the *triMarma s* namely *Shira*, *Hrudaya* & *Basti*, *Kanta*, *Rakta*, *Sukra*, *Ojas* and *Guda*. A wise physician who is well aware with these is said to be the survivor of life. *Acharya Charaka* also explains *Dasha Prana* as *Murdha*, *Kanta*, *Hridaya*, *Nabhi*, *Guda*, *Basti*, *Oja*, *Sukra*, *Sonitha* & *Mamsa*. First 6 i.e *Murdha*, *Kanta*, *Hrudaya*, *Nabhi*, *Guda*, *Basti* are coming under *Marma Sankhya*.^[5]

Vagbhata in *Astanga Sangraha*, stated the *MahaMarma s* along with the *Dashapranayatanas*. These are *Moordha*, *Jihvabandhana*, *Kanta*, *Hrudaya*, *Nabhi*, *Basti*, *Guda*, *Sukra*, *Oja* and *Rakta*. Among these the first 7 namely *Moordha*, *Jihvabandhana*, *Kanta*, *Hrudaya*, *Nabhi*, *Basti* & *Guda* are named *MahaMarma*. He describes the composition of *Marma* which is the gathering of the 5 elements *Mamsa*, *Sira*, *Snayu*, *Asthi*, & *Sandhi*. Further it is clarified that although all *Marma s* comprise all the 5 elements, the individual structural classification applies based on the predominance of the particular structure.

Ashtanga Hrudayakara has defined *Marma* as the site where confluences of *Mamsa*, *Sira*, *Snayu*, *Asthi*, *Sandhi* and *Dhamani*. Here it must be noted that only *Astanga Hrudayakara* mentions *Dhamani* as one among the *Marma Vasthu*. He has also said that the sites which are painful, tender and show unbearable throbbing after getting afflicted with an injury should also be considered as *Marma*.

All the above facts show the importance and vitality of the *Marma* points. Any injury, trauma or disease affecting *Marma* will cause death or severe pain equal to death.

Table No. 1 showing the classification of *Marma* according to *Tridosha* and *Parinama* (effect after injury).^[6]

Sr. No.	Type of <i>Marma</i>	Total No.	<i>Mahabhuta</i>	Effect after Injury
1	<i>Sadyo Pranahara</i>	19	<i>Agni</i>	Immediate loss of <i>Agni Mahabhuta</i> causing death immediate or within one week.
2	<i>Kalantara Pranahara</i>	33	<i>Soma & Agni</i>	Immediate loss of <i>Agni Mahabhuta</i> but gradual loss of <i>Soma Mahabhuta</i> (i.e. within one month)
3	<i>Vishalyaghna</i>	3	<i>Vayu</i>	These are predominant of <i>Vayu</i> . As long as <i>Vayu</i> stays inside obstructed by the tip of the <i>Shalya</i> the person lives but as soon as it is extracted, he dies or if the <i>Shalya</i> comes out after suppuration, then also survives.
4	<i>Vaikalyakara</i>	44	<i>Soma</i>	<i>Marma</i> causing disabilities. These are

				predominant of <i>Soma Mahabhuta</i> , due to firmness and coldness sustains life.
5	<i>Rujakara</i>	8	<i>Agni & Vayu</i>	These <i>Marma</i> causes pain. They have predominant qualities of <i>Agni</i> and <i>Vayu Mahabhuta</i> .

Concept of *Trimarma*^[7]

There are 107 marma present in the body but out of them three main *Marma* namely *Shira* (brain), *Hriday* (heart) and *Basti* (kidney and urinary system) are important sites in the body. *Acharya charak* described about *Trimarma* in *Chikittsasthan* 26 *Trimarmiya Chikittsa* and also in *Siddhistaan* chapter 9 *Trimarmiyasiddhi*. Although all organs and structures are related with all *Dosha*, it can be said that *Basti* is related with vata, *Hrudaya* is mainly related with *Pitta*, *Shira* is mainly related with *Kapha*. This forms the idea of the relation of the *Tridosha* with the *TriMarma Sthana*.

Acharya charak describes *Trimarma* as physician point of view. He has considered only these trimarma because these are the controllers of all activities of our body like *Shira* (Head) as central nervous system, *Hriday* (heart) as cardio vascular system and *Basti* (kidney, ureter, Bladder) as urinary system hence trimarma known as root of life.

Trimarma are not only the vital points but they also control the complete body system and Injury to these trimarma quickly affects the vitality of a person and may be fatal. If these three are affected by any physiological and pathological disturbance, body is broken quickly because by destruction of substratum, dependent is also destroyed.^[8] Hence these should be protected from external injuries as well as internal injuries.

Trimarma are the seats of prans and if they affected physio-pathologically, they can create severe complications. *Acharya Charaka* has explained *Trimarma* classification Pathophysiologically rather than traumatic injury so these three marmas has greater importance than remaining marmas in the body whereas *Acharya Sushurut* has explained marma classification from Shalya points of view and he has classified marmas as sadhya-praanhar, kaalantar, rujakar vishalyaghan and vaikalyakar.

Trimarma are situated in the median plane in the body. Brain and spinal cord form axial structures of the body and the nerves emerges from the spinal cord innervates the different system of the body while the remaining marmas are situated in the other parts of the body and ultimately related to these trimarma so these three marma are very important.

Anatomical view of Marma.^[9,10]

Marma is not only anatomical structure but also a part of applied anatomy, it is physio-anatomical concept described in ayurveda. *Marma* is explained as the anatomical area where the five – principle anatomical structures *Mamsa*, *Sira*, *Snayu*, *Asthi*, and *Sandhi* are collectively present. It is the intense point of *Prana*, which gives its vitality. It is a site where pulsation is felt and generates pain when pressure exists.^[11]

Anatomical description of each and every *Marma* is given in our classical texts. The position, number, size etc, are well explained by *Acharya Vagbhata* and *Sushruta*. They have also categorized the whole 107 *Marma* based on the anatomical view. The structures presents at the site of *Marmasthan* are called as *Marmavastu*.

Marma is the part of surface anatomy where we get knowledge of internal structures and pathological conditions due to trauma. With the help of skin surface of particular *marma* and region of the *marma* we understand the area, internal structure and severity of the trauma^[12,13]

Role of Marma in Roga Marga

Marma comes under *Madhyamaroga Marga*. Appropriate understanding of the *Roga Marga* is essential to analyze the characters of the diseases, related with *Dushti* of the *Madhyama Roga Marga*. The *Adhishtana* of these diseases can be assessed by the physiological changes we realize in the body. So the involvement of the *Marma* in the disease can be detected considering the type of *Rogamarga*.

Role of Marma in Understanding Prognosis

The relevance of *Marma* in the prognosis of the disease is well defined in classical texts by *Acharya Charaka* and *Vagbhata*. On discussing *Sukhasadhya Rogas* *Acharya* has highlighted the point that the disease should be away from *Marma* i.e., should not be on or near to *Marma*, and also *Dalhana* has described that the *Roga Marga* should be *Ekal*(only one) and never *Madhyam Rogamarga*. *Susrutha* has mentioned that a person whose trunk head and scalp are injured severely and legs, arms or feet are amputated or else the other part of the body are studded with injuries are likely to survive if their *marmas* are safe. The involvement of vital points is well mentioned in classics. These diseases are with deep *Samprapti* and bad prognosis.

Role of Marma in Samprapthi

In the *Samprapthi* of any disease the *Adhisthana* of *Roga* has great importance and here the *Adhishtana* in the seat of *Tridosha*, *Triguna* and *Prana*, which is the most vital part of our body. So the *samprapthi* is so deep that the prognosis will be *Krichrasadhya* or *Asadhya*. Any injury to *Marma* causes *Dathu Kshaya* due to loss of blood, leading to vitiation of *Vata* all over the body, produces severe pain. Increase of *pitta* in turn produces thirst, emaciation, unconsciousness, severe perspiration, weakness and looseness of the body. So, knowing the *Doshic* and *Guna* status of the involved *Marma* treatment should be applied immediately since the *Samprapthi* is deep. So the knowledge *Samprapthi* helps *Vaidya* to judge the prognosis of the disease and so as to manage the case properly.

Surgical importance of Marma

Susruta describes the knowledge of *Marma* and its vitality as the *Ardhavishaya* (half the subject) of *Salyatanthra* in his *Pratyeka Marma nirdesa Sharir*.^[14] This implies the relevance of *Marma* in *Salyatanthra* and the importance of knowledge of *Marma Sharir* for a surgeon to practice the *Shalya karma*. While doing any surgical procedure surgeon must take care of *marma sthan* because injury to the *marmasthan* causes severe pain disability of that part or even death.^[15] So he should avoid *marmasthan* during any surgical condition.

Marma in Shastra-Ksharadi Karma

During, *Shastra*, *Kshara* and *Agni Karma*, great care should be given to *Marma sthana*. *Susrutha* has specially mentioned this view while elaborating the *Marma* and also during particular contexts in each *Shastradikarma* that any injury to the *Marma Sthanna* can cause even death. So they better protected during the above *karma*.

Susrutha has also mentioned that whether these *Karma* cause injury to the adjacent parts of *Marma*, symptoms and signs similar to those of the injuries to the *Marma* itself will be seen.

In the *Agropahraneeya Adhyaya*, during the explanation of *Pradhana Karmaa* of *Shastrakriya Karma*, *Susrutha* has mentioned that *Shastra* should be used, avoiding the vital points.^[16] *Vagbhata* also mentions the relevance of *Marma* while doing the *Siravedha*.^[17]

Importance of Marma in Panchakarma

While reviewing the indications and contradictions of each *Panchakarma* procedure, the relevance of *Marma* in *Panchakarma* procedures in *Marma dhistitha Roga* will reveal the need of *Marma Sharir*. The reason is the involvement of vital points in the *Samprapthi* of the

diseases. That again most amenable to enema therapy. *Shir*, *Hridaya* and *Basti* should be protected particularly from vata. Vata is the main cause of aggravation of pitta and kapha dosha and also is the root cause of vital breath. There is no any other therapy equal to enema therapy for the protection of vital parts.

DISCUSSION

The concept of *Marma* is an extremely extensive research for every ayurvedic clinician. It is useful in various types of trauma due to different factors of body as well incidents occurring during various surgeries, removal of varied types of foreign bodies from different areas of body, warfare wounds, attacks of wild animals during those days and also the various troubles of *Panchkarma* therapy.

The clinical aspect of Marma is elaborated by *Sushruta* was to avoid damage or injury to the important structure during surgery. *Acharya Charaka* explain the concept of *TriMarma* while considering the origin and practical utility of Marma. It provides great importance to the three Marma namely *Shir*, *Hridaya* and *Basti* out of 107 *Marma* and for that reason contained in the ten *Pranayatana*.

The knowledge of *Marma* is of more useful during Surgery, because of the fact that injury to the *Marma* point, may lead to loss of life immediately or later by problems or result in deformity of a specific area of the body. Surgeon must know the dimension of every *Marma* and the harms of the *Marma* point injury so that he can make incision carefully while during any surgical condition.

In modern surgery, the incisions are used taking into consideration the nerve and blood circulation. Although there is no direct reference of *Marma Sharir* in modern surgery, even today every surgical attempt is made to avoid injury to the essential and dangerous structures or areas of the body; otherwise many problems occur in the present era. it is important to never have only the structural knowledge or morphological information on the *Marma* factors but the understanding of minute information on gross and microscopic anatomy are also necessary to became a good doctor.

CONCLUSION

- The facts about *Marma* becomes very clear from the wide descriptions in various *Ayurvedic* texts belonging to the *Vedic*, *Samhita* and *Samgraha* period and due its great therapeutic value it is considered as important concept. Even in the present era.

- *Marma* is nothing but a vital points or area of the body, so one has to guard these places very carefully.
- In *Ayurveda* there are 107 invisible *Marma* out of them three (*Shir Hrudaya* and *Basti*) are called vital points which causes death when getting injured.
- The knowledge of *Marma* is dependent on the clinical experience. If *Marma Sharira* is explored further there would be likelihood of more success in treatment methods and surgery aside from Traumatology.

REFERENCES

1. Susrut samhita, Yadavji Trikamji Acharya, editor. Susruta Samhita with Nibandha Sangraha of Dalhanacharya. 8th ed. Varanasi: Chaukhambha Orientalia, 2008. Page no. 369.
2. Chaurasia.B.D. editor. Human Anatomy, part I.4th ed. New Delhi: BSP publishers & Distributors; 2004.
3. Susrut Samhita, Vaidya Atridev, Motilal Banarasidas New Delhi, 2002; Page No. 324.
4. Ashtanga hrudaya, Harisadasivasastri Paradakara Bhisagacarya, editor. Ashtanga Hrudayam with Sarvangasundara of Arunadatta & Ayurvedarasayana of Hemadri. Varanasi: Chaukhambha Orientalia; 2005.
5. Caraka Samhita revised by Caraka and Drdhabala with Sri Cakrapanidatta Ayurvedadipika Commentary in Sanskrit by Vaidya Jadavji Trikamji Acharya, editor. 5th ed. Varanasi: Chaukhambha Sanskrit Sansthan; 2008.
6. Sushrut samhita, Sushrutvimarshanitika, volume II, dr. anantram Sharma, chaukhamba surbharati prakashan, 2004; page no. 99.
7. Caraka Samhita revised by Caraka and Drdhabala with Sri Cakrapanidatta Ayurvedadipika Commentary in Sanskrit by Vaidya Jadavji Trikamji Acharya, editor. 5th ed. Varanasi: Chaukhambha Sanskrit Sansthan; 2008.
8. Anatomical Consideration Of Trimarma, Dr. Harsh Arvind Pastore, M.D. (Sharir Rachna) Assist. Prof. Miaer, M.P., World Journal of Pharmaceutical Research, Review Article ISSN 2277– 7105. 4(9): 700-704.
9. Das.S., editor. A Concise Textbook of Surgery, 3rd ed. Calcutta: Das.S; 2001.
10. Chaurasia.B.D., editor. Human Anatomy, part I.4th ed. New Delhi: CBS Publishers & Distributors; 2004.

11. Importance of Ayurvedic Marma Vigyan”, by Ankur Kumar Tanwar published in ayurveda- for healthy living monthly magazine October 23, 2015 Research Associate, Govt of NCT Delhi
12. A Comprehensive Study of Marma s in the Hasta (Hand) w. s. r. to the Surface and Regional Anatomy, by Dr.Vijaynath.V S.D.M. College Of Ayurveda, Udupi, year 2010 -11.
13. Keith, Moore & Arthur. F. Dalley,editor. Clinically Oriented Anatomy, 5th ed. Baltimore: Lippincott Williams & Wilkins; 2006. Pp-1209.
14. Sushrut Samhita, Vimarshani Tika, Volume II, Dr. Anantram Sharma, Chaukhamba Surbharati Prakashan,2004; Page No. 99
15. Susrut samhita, Yadavji Trikamji Acharya, editor. Susruta Samhita with Nibandha Sangraha of Dalhanacharya. 8thed. Varanasi: Chaukhambha Orientalia, 2008.
16. Sushrut Samhita, Vimarshani Tika, Volume II, Dr. Anantram Sharma, Chaukhamba Surbharati Prakashan, 2004, Page No. 17.
17. Ashtanga hrudaya, Harisadasivasastri Paradakara Bhisagacarya, editor. Ashtanga Hrudayam with Sarvangasundara of Arunadatta & Ayurvedarasayana of Hemadri. Varanasi: Chaukhambha Orientalia; 2005.