

## MARMA: PARIMAN (MEASUREMENTS), PRAKARA (TYPES) AND PRABHAV (EFFECTS) WITH SPECIAL REFERENCE TO IT'S CLINICO-ANATOMICAL ASPECTS AS PER PRESENT SCENARIO

<sup>1\*</sup>Dr. Amit Gehlot, <sup>2</sup>Prof. Mahendra Sharma, <sup>3</sup>Dr. Shyoram Sharma and  
<sup>4</sup>Dr. Avadhesh Shandilya

<sup>1</sup>PG Scholar, PG Department of Rachana Sharir UPGIAS&R, Jodhpur.

<sup>2</sup>Professor & Head of PG Department of Rachana Sharir, UPGIAS&R, Jodhpur.

<sup>3</sup>Associate Professor, PG Department of Rachana Sharir, UPGIAS&R, Jodhpur.

<sup>4</sup>PG Scholar, PG Department of Swasthivritta, UPGIAS&R, Jodhpur.

Article Received on  
03 November 2022,

Revised on 23 Nov. 2022,  
Accepted on 13 Dec. 2022,

DOI: 10.20959/wjpr202217-25051

### \*Corresponding Author

**Dr. Amit Gehlot**

PG Scholar, PG Department  
of Rachana Sharir  
UPGIAS&R, Jodhpur.

### ABSTRACT

Since Vedic times references of *Marma* are found literature. In Ayurvedic literature, concept of *Marma* was first found in documented form in *Charaka Samhita* but the detailed description of *Marma Sharir* accompanied with its *viddha lakshana* (when injured) characteristics is available in *Sushrut Samhita*. *Acharya Sushruta* descriptively stated every aspect of *Marmas* like definition, location and their clinical aspect. The total numbers of *Marmas* as per *Samhitas* are 107 in number. Twelve *Pranas* and the vital energy of the body are known as the contents of the *Marma sthana*. *Marmas* are vital points of the body

so they should be protected from any injury. *Acharya Sushruta* dictates that understanding of *Marma Sharir* covers the half knowledge of surgery. Any kind of injury to these points may results into severe pain or death and it will cause some deformity in patient even if treated by physician expert in *Marma* therapy. *Marmas* are vulnerable sites of *Tridosha* and *Triguna*; hence, they should be saved during any clinical (surgical or *panchkarmic*) process. These are the parts of the body which are directly related to *Pranik* channels to internal organs. *Marmas* are said to be the sites where there is one or more of *mamsa*, *sira*, *snayu*, *asthi* and *sandhi* are and these are the places where prana resides specially by nature. The severity of the injury depends upon the site, depth of wound; intensity and time duration go off after injury. To prevent these vital points from any types of injuries everyone must know its location,

anthropometric dimension, vitality and ill effects after injuries and before any surgical or clinical procedure.

**KEYWORDS:** Anthropometric Dimensions; Human Body; References of *Marma*; clinical procedure; surgical procedure; Ayurveda.

## INTRODUCTION

Ayurveda: the ancient Indian medical science that deals with physical and psychological health of the human being. In Ayurvedic classics, Prana or vital force i.e. equivalent to the subtle life force energy for the existence of mankind. To understand the term *Prana*, we need to understand different structures of the human body. The term *Atma* is coined for *Prana* due to its existence all over the body, but its roots being embedded in precise location of human structure. The point of union of five basic elements as *Aakash*, *vayu*, *agni*, *jala* and *prithvi* is structural unit of human body. The functional units of same structure can be stated as *Mamsa*, *Sira*, *Snayu*, *Asthi* and *Sandhi* and if we talk about *Marma* any of these one such unique location is required to be the place where this vital life force energy is residing. In other words, they can be defined as the complex anatomical sites, where a definite physiology rests and produce specific traumatic effects. These specific locations are explained as concept of *Marma Shareera* in ayurvedic *samhitas*.

References of *Marma* are found in literature since Vedic times. *Valmiki's Ramayana* and *Vyas' Mahabharata* are also included in those. In Ayurvedic literature, *Marma* was first mentioned by *Acharya Charak*. The detailed description of *Marma Sharir* is available in later *Samhitas*. *Acharya Sushruta* was the first who described every aspect of *Marma* like definition, signs and symptoms of *Marma* injury. The total numbers of *Marma* as described in *Samhitas* are 107 in number. Twelve *Pranas*, the vital energy of the body, are the contents of the *Marma* sthana. As *Marma* are vital points of the body they should be protected from any injury.<sup>[1]</sup> According to *Acharya Sushruta*, knowing *Marma Sharir* is halfway to the surgery. Any type of injury to these points may lead to severe deformity or even death depending on type, location and gravity of injury and *Marma* site. Even if treated by physician expert in *Marma* therapy, patient will cause some deformity. These are the sites of *Tridosha* and *Triguna* with varying degrees of contribution; that's why they're directly related to *Pranik* channels to internal organs. Sharp or blunt any type of force on them (*Marma* points) causes disruption and called *Marmavedhan*. and its Characteristics i.e. *Marmaviddha Lakshanas* as explained by *Acharya Sushruta* are like- injury to *Lohitaksha*

*Marma*, there will be death due to excessive bleeding. As per *Sushruta samhita*, there are four main ways to divide types of *Marma* and they are as follows.

- According to *Rachana* (structural components)
- According to *Aghataj Parinaam* (aftereffects of *Marmavedh*)
- According to *Parimaan* (anthropometric dimension)
- According to *Shadanga Sharir* (location on body)

#### According to *Rachana* (structural components)

*Marmas* can be of five types- *mamsa*, *sira*, *snayu*, *asthi* and *sandhi Marma*. *Sushrutacharya* further stated that these five elements are the only constitution of *Marma* and without these five elements *Marma*'s are not exist. But apart from this *Acharya Vagbhata* added the sixth element in this above mention constitution; he stated that, we must add "*Dhamani*" in the constitution and stated that dominance of any one of these six elements decides the type of *Marma* (Tables 1-4) (Figure 1).<sup>[3-5]</sup>

**Table 1: Showing classification of *Marma* according to *Rachana* presents at the location.**

Sr. No.	Name of Marma	Acharya Sushruta	Acharya Vaghata
1	<i>Mamsa Marma</i>	11	10
2	<i>Sira Marma</i>	41	37
3	<i>Snayu Marma</i>	27	23
4	<i>Asthi Marma</i>	8	8
5	<i>Sandhi Marma</i>	20	20
6	<i>Dhamani Marma</i>	Not Mentioned	9

#### According to *Aghataj Parinaam* (aftereffects of *Marmavedh*)

General Symptoms of *Marma Abhighatha*

While explaining the *shastra karma vyapat*, *Acharya Sushruta* mentions the common symptoms occurred to any *Marma sthana* due to injuries. These symptoms are also produced as a result of complication of an improperly performed surgical operation, where in injury to a *Marma sthana* may happen

- *Bhrama*- feeling of giddiness as though circling in a wheel
- *Pralapa*- irrelevant talk
- *Patanam*- inability to be in erect posture
- *Pramoha*- a state of semi consciousness
- *Vicheshtanam*- any abnormal movement of body, whether increased movement or decreased movement can be considered

- *Samlayanam*- a state of complete unconsciousness
- *Ushnatha*- increase in body temperature
- *Srasthangatha*- weakness of body parts
- *Moorcha*- decreased level of consciousness
- *Urdhvavata*- belching or increased expirations
- Severe pain or different types of pain due to *vata*.
- Flowing out of blood resembling meat wash.
- Absence of contact or abnormal contact between *indriya* and *indriyarth*a resulting in loss of *indriya indriyarth*a *sannikarsha*.

The above symptoms are the common symptoms found when all the 05 *Marma* components viz. *Mamsa*, *sira*, *snayu*, *asthi* and *sandhi* are getting injured together.

### **Marma beyond Surgery**

*Susrutacharya* himself explains that the otherwise curable diseases being located in *Marma* generally becomes very difficult to cure though treated with all effort.<sup>35</sup> An injury need not always be violent, many a time mild constant irritation to *Marma* can lead to diseases. While explaining the *Roga Margas*, the second *Rogamarga* is related with *Marma*, *Asthi* and *Sandhi*. Further it is explained that diseases affecting the *Madyama Marga* are difficult to cure. So not only for surgeons, all physicians irrespective of their discipline should have a clear idea about these vital points.<sup>[17]</sup>

*Antah* (Peripheral Region) *Viddha* and *Madhya Viddha Lakshana*.

The structure of the *Marma* generally includes 2 parts, *Madhya* and *Antah* (peripheral region) parts.

*Madhya Viddha* (central region) i.e. Injury to the *Madhya* (central part) of the *Marma* occurs, and then cardinal symptoms related to particular *Marma* appears like as; *Shankha Marma Madhya Viddha* leads to death. While in *Antah* (peripheral region) *Viddha* i.e. Injury to the *Antah* (peripheral region) *pradesha* of the *Marma* occurred then instead of showing cardinal signs; it converted in to successive *Marma lakshana*.

**Table 2: Showing classification of *Marma* according to *Parinaam* (effect of injury) presents at the location.**

Sr. No.	Name of the <i>Marma</i>	<i>Sankhya</i>
1	<i>Sadya Pranhar Marma</i>	19
2	<i>Kalantar Pranhar Marma</i>	33
3	<i>Vishalyaghna Marma</i>	3
4	<i>Vaikalyakar Marma</i>	44
5	<i>Rujakar Marma</i>	8

#### **According to *Parimaan* (anthropometric dimension)**

Measurement is determination of the magnitude of a quantity by comparing with a standard for the same. A definite state of standard unit having consistent interrelation, used to determine magnitude of a entity can be called as measurement system.<sup>[6-9]</sup> Measures were among the earliest tools invented by human. Primitive societies needed rudimentary measures for many tasks: constructing dwelling of an appropriate size and shape of, fashioning clothing and bartering food or raw materials. Human understand ably turned first to parts of his body and his natural surroundings for measuring instruments. Early Babylonian and Egyptian records, and the Bible, indicate that length was first measured with the forearm, hand, or finger. In modern era metric system first came about in the 1790 when French academy of science was asked to construct a new system of unit for use throughout the world the current international standard metric system (SI) unites accepted by the 11th conference of weights and measures in 1960.<sup>[10,13]</sup>

In *samhitas* the measurement was done by *angula praman*. While describing *Marma Sharir* Acharya Sushrut measured it with *Swangula pramaan*.



**Figure 1: Determination of *Swangula Praman*.**

*Swaangula Praman*

*Swangua* = *swa* + *angula*

*swa* = self; *angula* = finger

Finger is an ancient and absolute non-SI unit of measurement of length. It was originally based on the breadth of a human finger. Among the prevalence system of unit it was a fundamental unit of length. *Swaangula* as a unit measurement seems to be more natural and scientific method. Ayurveda has given importance to individualistic approach rather than a generalized one and as every person has a different finger size and shape the *pramaan* made sense in its authenticity.<sup>[14-16]</sup>

**Table 4: Shows classification of *Marma* according to *Parimaan*(Anthropometric Dimension.**

Sr. no.	Name of the <i>Marma</i>	Total number	<i>Sushruta</i> <sup>[19]</sup>	<i>Ashtang Sangraha</i> <sup>[20]</sup>	<i>Ashtang Hrudaya</i> <sup>[21]</sup>
1	<i>Adhipati</i>	1	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
2	<i>Aani</i>	4	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
3	<i>Ansa</i>	2	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
4	<i>Ansaphalak</i>	2	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
5	<i>Apang</i>	2	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
6	<i>Apstambha</i>	2	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
7	<i>Aplap</i>	2	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
8	<i>Aavart</i>	2	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
9	<i>Bruhati</i>	2	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
10	<i>Indrabasti</i>	4	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
11	<i>Guda</i>	1	<i>Swa-Panital</i>	<i>Swa-Panital</i>	<i>Swa-Panital</i>
12	<i>Gulpha</i>	2	2 angula	2 angula	2 angula
13	<i>Hruday</i>	1	<i>Swa-Panital</i>	<i>Swa-Panital</i>	<i>Swa-Panital</i>
14	<i>Janu</i>	2	3 angula	4 angula	3 angula
15	<i>Kakshadhara</i>	2	1 angula	1 angula	1 angula
16	<i>Katiktaran</i>	2	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
17	<i>Krukatika</i>	2	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
18	<i>Kshipra</i>	4	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
19	<i>Kukundara</i>	2	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
20	<i>Kurcha</i>	4	<i>Swa-Panital</i>	<i>Swa-Panital</i>	<i>Swa-Panital</i>
21	<i>Kurchshira</i>	4	1 angula	1 angula	1 angula
22	<i>Kurpara</i>	2	3 angula	4 angula	3 angula
23	<i>Lohitaksha</i>	4	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
24	<i>Manibandha</i>	2	2 angula	2 angula	2 angula
25	<i>Manya</i>	2	<i>Swa-Panital</i>	<i>Swa-Panital</i>	<i>Swa-Panital</i>
26	<i>Matruka</i>	8	<i>Swa-Panital</i>	<i>Swa-Panital</i>	<i>Swa-Panital</i>
27	<i>Nabhi</i>	1	<i>Swa-Panital</i>	<i>Swa-Panital</i>	<i>Swa-Panital</i>
28	<i>Nila</i>	2	<i>Swa-Panital</i>	<i>Swa-Panital</i>	<i>Swa-Panital</i>

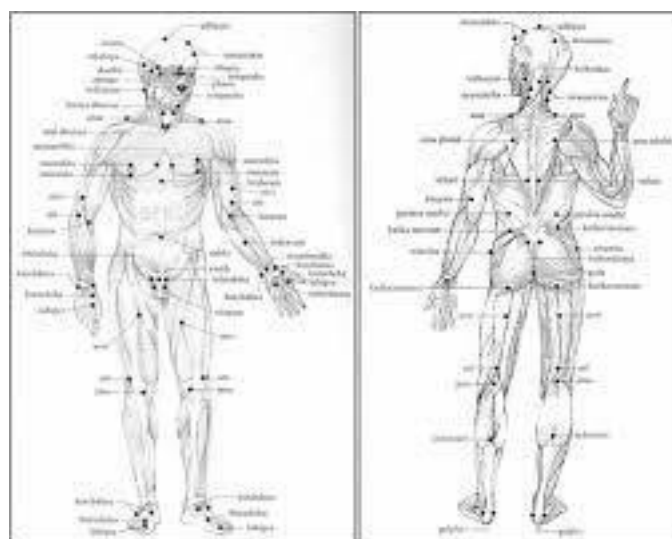


30	Parshwa-sandhi	2	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
31	Phana	2	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
32	Shankha	2	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
33	Shringatak	4	Swa-Panital	Swa-Panital	Swa-Panital
34	Simant	5	Swa-Panital	Swa-Panital	Swa-Panital
35	Stanmula	2	2 angula	2 angula	2 angula
36	Stanrohit	2	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
37	Sthapani	1	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
38	Talahriday	4	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
39	Urvi	4	1 angula	1 angula	1 angula
40	Utkshepa	2	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
41	Vasti	1	Swa-Panital	Swa-Panital	Swa-Panital
42	Vidhur	2	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula	$\frac{1}{2}$ angula
43	Vitap	2	1 angula	1 angula	1 angula

According to *Shadanga Sharir* (location on body)

**Table 3: Shows classification of Marma according to *Shadanga Sharir*.**

Sr. No.	Part of <i>Shadanga Sharir</i>	Number of Marma
1	Dakshin Urdhva Shakha (Right Upper Extremity)	11
2	Vaam Urdhva Shakha (Left Upper Extremity)	11
3	Dakshin Adhah Shakha (Right Lower Extremity)	11
4	Vaam Adhah Shakha (Left Lower Extremity)	11
	Urah(thorax)	9
5	Madhya Sharir (trunk)	Udar(abdomen)
		Prushtha(back)
6	Shir/Shiro Griva (Head & Neck)	37



### Effect of Intensity of Injury to the Marma points

Sushrutacharya stated that if intensity of Marma is not severe then result of injury may be different from the site mentioned in the particular Marma injury.<sup>[18]</sup> If *sadyapranhara Marma*

gets hurts even at the last it leads to death. Peripheral injured *kalantara pranhara Marma* turns into *vaikalyakara Marma* (forms deformity) and Peripheral injured *vishalyaghnya Marma* results in to sign of *vaikalyakara Marma*. Similarly *vaikalyakara Marma*, if injured in the Peripheral it shows symptoms like *kalantara pranhara Marma* and mildly injured *rujakara Marma* does not exhibit much pain. It is also fact that signs reflect not only as per the intensity of the *Marma* but also depends upon the site of *Marma*.

## DISCUSSION

The anthropometric dimensions of *Marma* points are 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 severity of *Marma* has been evaluated as above where post trauma commonly gives healing results. But *sushruta* has already emphasizes regarding the alteration of the post traumatic result depending upon the severity irrespective of the site.<sup>[19]</sup>

The clinical aspect of *Marma* is elaborated by *Sushruta* was to avoid damage or injury to the important structure during surgery. *Acharya Charaka* explains 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 anthropometric 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. This raises the query that under present advancement of the surgery any kind of *Marma* and subsequent predominant anatomical structure is manageable? *Sushruta* has already answered the query by the observation mentioned in the classical books. It also shows the awareness of the future development of the surgery which may possibly indicates the prognostic status of different *Marma* mentioned in ancient period.<sup>[17]</sup>

Conclusively it may be said that intensity of trauma may alter the prognostic state of *Marma*. However a skill surgeon may save the patient from disaster. The importance of surgical tissue has been laid down with respect to mode of injury, its dimensions and the kind of weapon



used, this also shows that classical view is not conservative on prognostic status of any *Marma* and prospective development of weaponry was anticipated. *Sushruta* was also considered in the Traumatology the importance of management given to the patient, which is confirmed by war experiences. Despite the discoveries since the period of *Sushruta* organized care of the acute injured is comparatively recent innovation.<sup>[15]</sup>

As result of improvement which enhanced the expertise of *Vaidya* (doctor) the morality rate dropped markedly to 4.5% in World War II which has already been mentioned in classical note of *Sushruta* that skilled *Vaidya* can save the trauma person inflicted at *Marma sthana* but not before the cost of residual loss. Mortality and morbidity were both shown to improve if patients with the serious wounds were evacuated within ten days after wounding. This shows the first week is considered to be very important from the mortality point of view and such vital areas along with its anthropometric dimensions were isolated by *Sushruta* under the category of *Sadya Pranahar Marma* where skilled management and rapid intervention are desired. Majority of these regions belong to fatal group as in case of head, abdomen and chest where all these *Marma* belong to fatal group. This indicates that head, neck and trunk are comparatively more significant than the extremities, which has been also observed by *Acharya Sushruta*. The reason has also been given in this context, the importance of blood has also been upheld through this observation and surgical behavior of the vessels of the extremities when they are amputated or disrupted following the contraction of the vessels and auto haemostat.<sup>[3,5,9]</sup>

The prognosis of *Marma* is variable depending upon the intensity, anthropometric area of wound, type of weapon used, the depth of wound and the loss of type of tissue. It has also been observed by our *Acharyas* that the time limit of fatality of *Sadhya pranahara Marma* is seven days, *Kalantara pranahara Marma* is from 15th that to a month which is also same concept of modern surgery. 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 its anthropometric dimensions and minute information on gross and microscopic anatomy are also necessary to become a good clinician.<sup>[10,12]</sup>

## CONCLUSION

*Marma* is the vital structure present in human body which if not handled properly causes pain, injury or even death. It is defined as a location where there is either *Mamsa*, *Sira*, *Snayu*, *Asthi*, and *Sandhi* of these are and where the *Prana* resides. In Ayurvedic classics *Marmas* are defined as the vital point in human body, the injury of which leads to severe symptoms (like pain, bleeding etc.) or may be termination of life. In Present time, life is very fast and furious that causes so many injuries during accidents, sports, or during daily activities which lead in to severe pain, injuries, deformity or even death. To avoid these circumstances, we must know the vital parts of our body along with their anthropometric dimensions so that we take proper care to secure them from injuries. Anthropometric knowledge of *Marma* points plays 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 anthropometric dimensions of these vital points of our body so that ones can prevent them from injuries.

## REFERENCES

1. Samhita S, Acharya YT Susruta Samhita with Nibandha Sangraha of Dalhanacharya. 8th (Edn.), Varanasi: Chaukhambha Orientalia, 2008; 369.
2. Chaurasia BD Human Anatomy, part I.4th (Edn.), New Delhi: BSP publishers & Distributors, 2004.
3. Samhita S, Atridev V, Banarasidas M. New Delhi, 2002; 324.
4. Ashtanga Hrudaya, Bhisagacarya HP Ashtanga Hrudayam with Sarvangasundara of Arunadatta & Ayurvedarasayana of Hemadri. Varanasi: Chaukhambha Orientalia, 2005.
5. Acharya VJT Caraka Samhita revised by Caraka and Drdhabala with Sri Cakrapanidatta Ayurvedadipika Commentary in Sanskrit by, editor. 5th (Edn.), Varanasi: Chaukhambha Sanskrit Sansthan, 2008.
6. Samhita S, Sharma A Sushrutvimarshanitika, volume II, chaukhamba surbharati prakashan, 2004; 99.
7. Pastore HA, Miaer MP Anatomical Consideration of TriMarma, (*Sharir Rachna*). World Journal of Pharmaceutical Research, 2001; 4(9): 700-704.
8. Das S. A Concise Textbook of Surgery, 3rd (Edn.), Calcutta, 2001.
9. Chaurasia BD Human Anatomy, part I.4th (Edn.), CBS Publishers & Distributors. New Delhi, 2004.

10. Tanwar AK Importance of Ayurvedic *Marma Vigyan*”, published in ayurveda- for healthy living monthly magazine, Govt of NCT Delhi, 2015.
11. Vijaynath A Comprehensive Study of *Marma* s in the Hasta (Hand) WSR to the Surface and Regional Anatomy, VSDM College of Ayurveda, Udupi, 2010.
12. Moore K, Dalley AF Clinically Oriented Anatomy, 5th (Edn.), Baltimore: Lippincott Williams & Wilkins, 2006; 1209.
13. Samhita S, Tika V, Sharma A Volume II, Chaukhamba Surbharati Prakashan, 2004; 99.
14. Samhita S, Acharya YT Susruta Samhita with Nibandha Sangraha of Dalhanacharya. 8th (Edn.), Varanasi: Chaukhambha Orientalia, 2008.
15. Samhita S, Tika V, Sharma A Volume II, Chaukhamba Surbharati Prakashan, 2004; 17.
16. Hrudaya A, Bhisagacarya HP Ashtanga Hrudayam with Sarvangasundara of Arunadatta & Ayurvedarasayana of Hemadri. Varanasi: Chaukhambha Orientalia, 2005.
17. Lahange A Review Study of *Marma Sharir* with Special Reference to Its Clinical Importance. World Journal of Pharmaceutical Research, 2016; 5(10): 454-463.
18. Journal of Natural & Ayurvedic Medicine Lahange MS, et al. Anthropometric Dimensions of *Marma* (Vital Area) Present in Human Body with Special Reference its Clinico-Surgical Importance in Present Scenario. J Nat Ayurvedic Med, 2018; 2(7): 000153.
19. Copyright© Lahange MS, et al. 7 18. Lahange A Critical Review Study on History of Indian Anatomy. World Journal of Pharmaceutical and Medical Research, 2017; 3(6): 95-99.