

## OBSERVATIONAL STUDY OF MANIBANDHAMARMA AND ITS LOCATION WITH SPECIAL REFERENCE TO WRIST PAIN

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### ABSTRACT

*Ayurved* is an ancient science of life. According to Sushruta size of *Manibandha Marma* is stated 2 anguli pramana. It is very important to find out actual location of *Manibandha Marma*. If it is clear that what is the exact location of *Manibandha Marma* then so many treatment methods can be done easily and successfully for e.g. Siravedha and Agnikarma. Thus this Article is the small effort in the field of Ayurveda by studying the normal anatomy of *Manibandha Marma*

W.S.R to Wrist Pain. One can easily put a relation between the two,

through Ayurvedic view and this will be helpful for Students and practitioners of Ayurveda to treat the To understand this concept of Marma and to prove it according modern science we have to prove it practically by showing its exact anatomical position, its location, what kind of internal structures involves in it so that these are called as a vital points. Therefore through this work, it is an effort to specify and locate exact anatomical position of *Manibandha Marma* through dissection on cadaver and Abaservational study on 30 Randomly Selected Patients Having Wrist pain (*Viddha Lakshana*). With the help of all this study, it is an attempt to present a proper guideline for surgical and medical management of Wrist Pain and also many treatment methods like *Siravedha*, *Agnikarma* etc. can be done harmlessly.

**KEYWORDS:** *Marma, Wrist Pain, Viddha Lakshana, Manibandhmarma.*

## INTRODUCTION

*Ayurveda* the science of life is traced back to *Vedic* time about 500 B.C. the great thinkers of *Ayurveda* devoted their time for the maintenance and longevity of life and freedom from disease. Ayurvedic principles are potent even in 21 century man, whose lifestyle has entirely changed compared to the ancient one. Ayurved believes that one can be a good physician and surgeon both only when he has practically observed and learnt all about the human anatomy doubtlessly. *Marma* is very important and unique concept of *Ayurvedic Sharir*. First & foremost literature of *Marma* is seen in *brihatrayee* which is described in the *sixth Adhyaya of Sharirsthana Prathek marma nirdeshsharir of Sushruta Samhita*.

### *Marma*

According to *Dalhana* the vulnerable point are those points on the human body surface on which any kind of trauma or injury may lead to death or symptoms like death. *Aacharya Sushruta* has described 107 numbers of *Marma* and described their Anatomical classification. According to *Aacharya Sushruta* the five anatomical structures are basically and essentially involved on *Marma* point. .

These structures are

1. *Mansa*
2. *Sira*
3. *Snayu*
4. *Asthi*
5. *Sandhi*

*Aacharya Sushruta* has also classified *Marma* points in to five types depending upon the ultimate results (prognosis) after the trauma inflicted upon these points.

These types are:

1. *Sadhya Pranhara Marma*
2. *Kalantara Pranahara Marma*
3. *Vishalyghna Marma*
4. *Vaikalyakara Marma*
5. *Rujakara Marma*

Among these *Marma Rujakar Marma* is selected for study.

## Rujakar Marma

If there is any trauma or injury at certain points which causes high grade pain are said to be *Rujakara Marma*.

**Number of Rujakar Marma.***Rujakara Marmas* are eight in number. They are:

1. *Two Gulpha*
2. *Two Manibandha*
3. *Four Kurchshira*

## Manibandha Marma

*Aacharya Sushruta* has described the *Manibandha Marma* which is a *Rujakara Marma*.

Location of *Manibandha Marma*: *at Manibandha Sandhi*

Symptoms of Aghat over *Manibandha Marma* are:<sup>[4]</sup> *Manibadha*, is Wrist joint

Between lower end of radius and three lateral bones of proximal row of carpus, when there is any injury on *Manibadha* there may be symptoms like:

1. *Ruja (Pain)*
2. *Kunthata (restricted movement)*

## Purpose of selection

Present era of fast moving life, everyone is in hurry, so accidentally occurring minor injuries are very common. Wrist pain is a common complaint. It's often caused by sprains or fractures from sudden injuries. But wrist pain can also result from long-term problems, such as repetitive stress, arthritis and carpal tunnel syndrome.

The knowledge of *Marma* is one such ancient concept used all over the world for prevention and cures the disease since centuries. According to *Sushruta* size of *Manibandha Marma* is stated 2 anguli pramana, but the exact landmark of *Manibandha Marma* where it is situated at *Manibandha sandhi*

## OBJECTIVES

1. To study the structural anatomy of *Manibandha Marma* with reference to Wrist Pain.
2. To study the *Rujakaratva and Kunthata of Manibandha Marma*.

## OBSERVATION OF THE UPPER LIMB

The dissection of cadavers was carried out in the department of Sharir Rachana as per Cunningham's manual of practical Anatomy. *Sushruta* has described the *Manibandha Marma* which is a *Rujakara Marma* and it's the location is as follows

The joint between lower end of radius and three lateral bones of proximal row of carpus. The *Manibandha Marma* is situated between the *BahirPrakostha asthi* and *Kurchaasthi* of manibandha after taking in to consideration Ayurvedic review of the *BahirPrakostha asthi*

and *Kurchaasthi* along with review of modern Anatomical structures it is seen observed that location of *Manibandha Marma* is in the Wrist joint. So dissection of Wrist region was carried out according to steps mentioned in Cunningham's manual of practical anatomy. following structures were observed in sequence:-Skin.

Fascia. muscles

Annular Ligament

Redial artery, Anterior and Posterior Carpal arches. Anterior and Posterior Interosseous nerves

Medial, Ulnar, Radial Nerves

### Muscles

Flexor carpi redialis Flexor carpi ulnaris Palmaris Longus

Extensor carpi radialis longus Extensor carpi radialis brevis Extensor carpi Ulnaris Abductor pollicis longus

### Ligaments

Dorsal radiocarpal/Palmar radiocarpal Dorsal ulnocarpal/Palmar ulnocarpal Ulnar collateral/Radial collateral

## DISCUSSION

Keeping in mind aim and objectives, this research especially highlights about the The *Manibandha Marma* and study of its *Rujakaratwa* and *Kunthata*. To carry out this concept first the detail literature about *Marma* is reviewed. Simultaneously related modern literature is also studied in details. With the help of both the review, it is our attempt to correlate the Ayurvedic concepts with modern terminology. *Sushruta* stated that *Marma* is a site in the body where *Mamsa*, *Sira*, *Snayu*, *Asthi*, and *Sandhi* are combined together and considered it as a location of *prana* that is life. Whereas *Vagbhata* stated that, *Marma* is a point in the body when given pressure from outside causes pain, tenderness and show abnormal pulsation.

## Discussion on the basis of literature review

The *marma* science is one of the exclusive concepts of *Ayurveda* which has been well developed by keen observations, especially at the time of surgical procedures. These are very special and vital superficial points spread on the whole body surface. They are special because these points are the sites of 'prana'<sup>[5]</sup> (Life processes). Moreover, *vishama spandana* is also very phenomenal characteristics of these *marma* points. *Acharya Sushruta* in his *Marma adhyaya*.<sup>[6]</sup>, *Acharya Charak* in his *Trimarmiya siddhi adhyaya*.<sup>[7]</sup> and *chikitsa adhyaya*.<sup>[8]</sup> *Ashtanga hridayam* in his *marmavibhaga* have made classical description throwing light on every aspect of *marma*. The *marmas* are very important from traumatological point of view. It has been observed that any trauma at this very point is more threatening or found to be delayed in recovery from injuries.

*Acharya Sushruta* has mentioned the same in *marmabhighata lakshanas*.<sup>[9]</sup> The behavior of *marma* after trauma or injury is also depending upon its structural type.

*Manibandha Marma* is one among *Sandhi Marma* and *Rujakar Marma*. Its size is mentioned as two *Angulas* (Swa angula).

## Discussion on Location of Marma

The *Manibandha Marma* lies in the *Wrist region*, the detail discussion of this point is as follows:-

The word *Manibandha* means where the *BahirPrakostha asthi* and *Kurchaasthi* of *manibandha* meet together or the part of body where the forearm is connected with the hand. when there is any injury on *Manibandha* there may be symptoms like: *Ruja* and *Kunthata*. The wrist includes joints: The wrist joint, Distal Radioulnar joints.

The movements produced at this joint are Flexion, Extension, Abduction, Adduction, Circumduction.

First aim of study is to determine the exact anatomical location of *Manibandha Marma* according to *Ayurveda* and modern science. So after comparing the *Ayurvedic* and modern view & performing the dissection we concluded that the exact location of *Manibandha Marma* is nothing but the joint between Lower end of radius and three lateral bones of proximal row of carpus.<sup>[10]</sup>

1) As we know *Manibandha Marma* is *Rujakar Marma* and after *Aghat* over *Manibandha Marma* symptoms appears *Ruja* (pain) and *Kunthata* (Restricted Movements)

2) *Sushruta* as classified *Manibandha Marma* as *Sandhi Marma* and if any type of injury

occurs over *Manibandha Marma* than maximum chances of joint injury and main symptom appears that is pain i.e. *Ruja* so it is a *Rujakar Marma*.

3) Wrist pain is caused by Wrist tendonitis, Wrist sprain and Carpal tunnel syndrome This condition gives rise to tremendous. Ligament injury is most common cause of any joint injury. So ligament is important part of *Sandhi* so if ligament is injured than the chances of *Sandhi* injury increases.

### On the basis of composition of *marma*

*Aacharya Sushruta* has defined *Marma* as the site where “*Mamsa, Sira, Snayu, Asthi, Sandhi sannipata, teshu svabhaavath eva Praanasthistanti.*” It means *Marma* is a not individual structure actually *Marma* is a group of structure which contains *Mamsa* (muscles) *Sira* (vein, artery, nerve) *Snayu* (ligament) *Asthi* (bone) *Sandhi* (joint) and where they meet together that can be said *Marma*.

According to the predominance of these structures the *Marma* also differs. As we know *Manibandha Marma* is a *Sandhi Marma* and *Rujakar Marma* so this *Marma* is a *Sandhi* predominant *Marma*, but other structures are also (*Mamsa, Sira, Snayu* and *Asthi*) involved in the *Marma*. Some experts are of the opinion that it does not mean that all the structure may be collectively present at the site. After detail study of Ayurvedic and modern literature and dissection it is concluded that *Manibandha Marma* which is a *Sandhi Marma* is situated at the junction of *Bahir Prakostha asthi* and *Kurchaasthi* of *manibandha* or Wrist joint. In my point of view *Sandhi Marma* means if there is any trauma (*Aghat*) or injury at Wrist region that directly affect the (*manibandha sandhi*) Wrist joint, in other words at Wrist region any type of injury causes easily injury to *Sandi* (wrist joint).

### DISCUSSION ON PRAMANA

*Pramana* of a *Marma* is so important that the surgical operations should be performed after considering the measurement of the *marmas* so as to avoid them. Even an injury to its borders may lead to deformity or loss of function All *Marmas* have been explained in terms of definite *pramana* in *samhitas* it helps in the determination of location of the *marma*. Among 107 *Marma* only 2 *Marma* having two *angula* (*svanguli*) *pramana* these are *Gulpha* and *manibandha*. Over these two *Marma* both are *Sandhi Marma* and *Sushruta* told that location

of *manibandha* in wrist joint same as *Gulpha* in *adhosakha* and both are *Rujakar Marma*. 2. *Angula pramana* of *Manibandha Marma* means, that area where there is maximum chances of injury to the *Manibandha Marma*.

## CONCLUSION

After review of Ayurvedic concept of *Marma*, literature related to it and the detail comparative study of modern science and observational study our conclusion is as fallows.

1. The concept of *Marma* is a unique concept of Ayurveda; it is mostly related to the vital structures according to the modern science.
2. Description related to *Manibandha Marma* is clearly found out by the dissection with the help of modern Anatomy. In the aspect of the location of *Manibandha Marma*,
3. As per Ayurveda *Manibandha Marma* is located between *BahirPrakostha Asthi* and *Kurchaasthi* of *Manibandha* compared with the modern Anatomy and through dissection it is found out that it lies in Wrist region.
4. As per Ayurveda the *Viddha lakshanas* of *Manibandha Marma* are *Ruja* and *Kunthata*. These symptoms occurs when there is trauma over the wrist joint and most common injury of that region is wrist sprain inversion injury and observational study of 30 patient of wrist pain also shows that after *Sushruta* has classified *Manibandha Marma* as *Sandhi Marma* and if any type of injury occurs over *Manibandha Marma*, then maximum chances of joint injury and main symptom appears that is pain i.e *Ruja* so it is a *Rujakar Marma*. Acharya *Sushruta* also described that *Snayu* injury is very painful in comparison to other injuries.
5. *BahirPrakostha Asthi* and *Kurchaasthi* of *Manibandha*. And that point is Wrist joint or (*Manibandha*).
6. So after comparing the Ayurvedic and modern view & performing the dissection we concluded that the exact location of *Manibandha Marma* is nothing but the joint between Lower end of radius and three lateral bones of proximal row of carpus.

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