

ASSOCIATION OF ANATOMICAL CHANGES OF WRIST JOINT AND KUNTHATA (INABILITY TO FUNCTION) IN THE PATIENTS OF AAMVATA (RHEUMATOID ARTHRITIS) WITH SPECIAL REFERENCE TO VIDDHA LAKSHANA OF MANIBANDHA MARMA

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Article Received on
08 May 2025

Revised on 28 May 2025
Accepted on 18 June 2025

DOI: 10.20959/wjpr202513-37363



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ABSTRACT

Introduction: *Aamvata* is a prevalent disease characterized by *vata* vitiation and *Aam* accumulation, primarily causing joint pain, stiffness, and swelling. This study aims to link anatomical changes in the wrist joint with *kunthata* i.e. *Viddha Lakshana* of *Manibandha Marma* in *Aamvata* patients. **Methods:** An observational cross-sectional study involved 56 pre-diagnosed *Aamvata* patients with both wrist joints affected. Data collection occurred through clinic visits, questionnaires, and investigations. **Results:** Most subjects (46.43%) fell within the 41-50 age range. The male-female ratio was 1:1, with 50% each. The severity distribution based on VAS scores showed 7.14% with mild, 25% with moderate, and 67.86% with severe symptoms. The analysis indicated a significant correlation between wrist joint anatomical changes and *kunthata*. **Conclusion:** The study concludes that there is a clear association between anatomical changes in the wrist joint and *kunthata* (inability to function) among *Aamvata* patients.

KEYWORDS: *Kunthata*, *Viddha Lakshana*, *Manibandha Marma*, *Aamvata* (Rheumatoid Arthritis), Wrist joint.

INTRODUCTION

Aamvata (Rheumatoid Arthritis) is a very common condition encountered in our day today practice. It is made up of a mixture of two words, *Aam* and *Vata*. This is often due to derangement of *Agni* result in the production of *Aam* and this *Aam* circulates in the body by means of vitiated *Vata*. In *madhavidana vijayrakshit* says '*aamena sahito vatah Aamvata* (Rheumatoid Arthritis)'. This means the *vata* is in association with *aam* is termed as *Aamvata* (Rheumatoid Arthritis).^[1] The virulent *Aam* circulates in whole body moved by the vitiated *vata*. *Aamvata* (Rheumatoid Arthritis) is autoimmune disease in which vitiation of *vata dosha* and accumulation of *Aam* takes place in joints. When this *Aam* gets mobilized by *vata* and gets localized in the body tissue or joints, can lead to production of pain, stiffness, swelling, tenderness etc.^[2] In advanced cases, the pain becomes so severe that the patient feels restless. This patient has to depend on others for day to day work.

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*.

Acharya Sushruta stated every aspect of *marma* like definition, signs and symptoms of *marma* injury. As *marma* are the vital energy of the body they should be protected from any injury. *Acharya Sushruta* believes that *marma sharir* covers the half knowledge of surgery. Little injuries to these *marma* points or anatomical areas can be fatal comparing with major injuries at anywhere else in body so, detailed knowledge of these *marma* points is crucial for *ayurvedic* physician. According to *Dalhana*, the vulnerable point are those points on the human body on which any kind of trauma or injury may lead to death or symptoms like death.

Acharya Sushruta has described 107 *Marma*.^[3] and described their anatomical classification. According to *Acharya Sushruta*, the point of union of *Mamsa*, *Sira*, *Snayu*, *Asthi*, *Sandhi* are basically and essentially involved on *Marma* point. *Manibandha Marma* is *Rujakara Marma* which is selected for the study.

Rujakara Marma

If there is any trauma or injury at certain points which causes high grade pain are said to be *Rujakara Marma*. *Rujakara marma* predominantly have the properties of *Agni* and *Vayu*, both of which produce pain.^[5] Although *Agni* is diminished because of trauma, yet *Vayu*

causes constant pain at the affected part. These are eight in number.^[6] If an injury occurs at the border or nearby area of the location of *Rujakara marma*, it causes severe pain.^[7]

Number of Rujakara Marma^[8]

Rujakara Marma are eight in number. They are

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

Manibandha Marma

Manibandha Marma- Two in number and located in the area of two *anguli* at *manibandha sandhi* (wrist joint). *Acharya Sushruta* has described the *Manibandha Marma* which is a *Rujakara Marma*.

Viddha Lakshanas of Manibandha Marma.^[9]

Manibandha is wrist joint between lower end of radius and three lateral bones of proximal row of carpal bones, when there is any injury on *manibandha marma* there may be symptoms like.

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

Wrist joint is one of the most important joints in the body. The wrist joint is a biaxial, ellipsoid-type joint that serves as the articulation between the distal end of the radius and the articular disc above and the scaphoid, lunate, and triquetral bones below. The joints primary role is to optimize hand function.

Purpose of selection

Though the concept of *marma* is related with traumatology. Hence it is necessary to explore the ancient concepts on modern platform on the basis of scientific study and as a preventive measure to be taken. 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, Rheumatoid Arthritis, Osteo- arthritis and Carpal tunnel syndrome.

OBJECTIVES

Primary

1. To study the association of anatomical changes of wrist joint and *kunthata* (inability to function) in patients of *Aamvata* (Rheumatoid Arthritis) whose both wrist joints are affected.

Secondary

1. To study *viddha lakshana* of *manibandha marma*.
2. To study the location of *Manibandha Marma* on cadavers.

MATERIALS

Considering the aim of *Manibandha Marma* study, review the ancient literature pertaining to *Marmasharir* from *Brihatrayee* and *Laghutrayee* and other related sources including the journals, presented papers, previous work done, etc. Material (instrument) for dissection like:

- 1) Well preserved dead body
- 2) Scalpel handle
- 3) Scalpel blade
- 4) Forceps
- 5) Mask
- 6) Surgical gloves
- 7) Muscle retractors
- 8) Tooth forceps

METHODS

- 1) Study Centre: - Department of *Sharir Rachana* of our institute. OPD/IPD of Kayachikitsa Department of our institute.
- 2) Literature study: - Considering the aim of structural anatomy of *Manibandha Marma*, review of the ancient literature pertaining to *marma Sharir* and *Manibandha Marma* from *Brihatrayee* and *Laghutrayee* and *Ayurvedic* texts.
- 3) Dissection: - The dissection was carried out on cadaver to study the anatomy of *Manibandha Marma* with the help of materials like scalpel, tooth forceps, etc and related anatomical structures in Wrist region.
- 4) Observational Study: - To study the association of anatomical changes of wrist joint and *kunthata* (Inability to Function) in 56 patients of *Aamvata* (Rheumatoid Arthritis) are randomly selected and examined. Their findings are maintained in Case Record Forms. The result was assessed from these findings.

6) No. of patients: 56 patients of *Aamvata* (Rheumatoid Arthritis) having both wrist joints affected was taken for the observational study.

7) Selection of patients:

A) Inclusion Criteria

1. Sex – Both males and females
2. Age group – 20 to 50 years
3. Pre-diagnosed patients of *Aamvata* (Rheumatoid Arthritis) whose both wrist joints are affected.

B) Exclusion Criteria

1. Age – Patient below age of 20 and above age of 50 years.
2. Fracture of Wrist joint.
3. Patient having other systemic disorder i.e. DM, CA, T.B. and Hepatitis

C) Assessment Criteria

Complaints

1. Pain
2. Swelling
3. Tenderness
4. Range of motion
5. Crepitus
6. Instability of Joint

Table 1: Gradation.^[10]

	NIL (0)	MILD (1)	MODERATE (2)	SEVERE (3)
Pain	No pain	Occasional, can be managed without drugs	Frequent, can be managed with painkiller	Persistent and unmanageable even with drugs
Swelling	No swelling	Joint swelling which may not be apparent on casual inspection but should be recognisable	Joint swelling on casual observation	Markedly abnormal swelling
Tenderness	No tenderness	Tender but bearable	Tender and winced	Tender, winced and withdraw
Range of motion	No restriction,	Mild restriction while twisting,	Moderate restriction, slightly	Severe restriction, unable to move,

	full ROM, muscle activation against resistance	forward and backward bending, ROM slightly decreased against resistance	twisting, forward and backward bending, ROM decreased slight movement against resistance	ROM about on resistance
Crepitus	No crepitus	Palpable crepitus through 1/3 rd of the ROM	Palpable crepitus through 1/3 rd - 2/3 rd of ROM	Palpable crepitus through greater than 2/3 rd of ROM
Instability of Joints	No instability	Instability appreciable by the patient but cannot be elicited on clinical examination	Instability can be elicited on clinical examination	Complete and distinct instability

D) Photographs: - Photographs of dissection are taken.

OBSERVATION OF THE UPPER LIMB DISSECTION

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 its 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 into 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. After dissection following structures were observed in sequence:- Skin, Fascia, Muscles, Annular Ligament, Radial artery, Anterior and Posterior Carpal arches, Anterior and Posterior Interosseous nerves, Medial, Ulnar, Radial Nerves.

Muscles

Flexor carpi radialis

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

OBSERVATION

56 patients having *Aamvata* (Rheumatoid Arthritis) have been taken for the study. The observations found at the end of clinical study were assessed statistically as follows:

Table 2: Age distribution of study subjects.

Distribution of subjects according to age-group (years)		
Age-Group (years)	No.	%
21 - 30	12	21.43
31 - 40	18	32.14
41 - 50	26	46.43
Total	56	100.00
Mean	38.68	
SD	8.6	
Range	21 - 50	

Table 3: Sex distribution of study subjects.

Distribution of subjects according to gender		
Gender	No.	%
Male	28	50.00
Female	28	50.00
Total	56	100.00

Table 4: Distribution of subjects according to duration in years.

Distribution of subjects according to duration in years		
Years	No.	%
≤ 1.99	11	19.64
2 - 5	33	58.93
> 5	12	21.43
Total	56	100

Table No: 5.

Summary of mean scores for various symptoms					
Symptoms	Mean	Median	SD	Minimum	Maximum
Pain	5.98	6	2.62	1	10
Swelling	1.78	2	0.68	1	3
Tenderness	1.36	1	0.52	0	2

Crepitus	1.09	1	0.55	0	2
Instability of joints	2.36	2	0.61	1	3
Range of motion	1.19	1	0.55	0	3

Table No: 6

Distribution of complaints according to by severity grades								
Complaints	Severity grades							
	Nil		Mild		Moderate		Severe	
	No.	%	No.	%	No.	%	No.	%
Pain	0	0.00	4	7.14	14	25.00	38	67.86
Swelling	0	0.00	20	35.71	28	50.00	8	14.29
Tenderness	1	1.79	2	3.57	21	37.50	0	0.00
Crepitus	6	10.71	39	69.64	11	19.64	0	0.00
Instability of joints	0	0.00	4	7.14	28	50.00	24	42.86
Range of motion	3	5.36	40	71.43	12	21.43	1	1.79

DISCUSSION

Literary Review Of *Marma*

Keeping in mind aim and objectives, this research especially highlights about the the *Manibandha Marma* and study of its *Rujakaratwa* and *Kunthata*. The detailed literature about *Marma* is reviewed. Simultaneously related modern literature is also studied in details. As described earlier, injury to the *Marma* points, i.e. *Marmaghata*, can lead to severe pain, loss of sensation, loss of function, disability, and death. A significant portion of *Shalya Tantra* (science of surgery) deals with the knowledge of the fatal spots (*marmas*), because any injury to these fatal spots leads to sudden death, and if anyone survives due to the efficiency of the physician, the occurrence of deformities is almost a certainty.^[11] 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'^[12] (Life processes). Many references can be found in the vedic literature regarding injury at *marma* region of soldiers of enemies and protection of ones *marma* by wearing guards. *Marmas* are formed by the conglomeration of muscles, vessels, ligaments, tendons, bones and their joints. These *marma* areas have *tridosha*, *triguna*, *bhutatma* and *chetanadhatu*, so any injury to these points may cause pain or even death, other symptoms which appear on injury of *marma* are giddiness, syncope, delusion, semi-consciousness, numbness etc. The *sandhi marma viddha lakshanas* are *vastushookarivakirna*, *rudhe* (the site of injury feels as though full of thorns, even after healing of wound), *kunhi* (shortening of arm), *khanjata* (lameness), *balacheshta kshaya* (decrease of strength and movement), *shosha*

(emaciation) and *parva shopha* (swelling of joints). The *rujakara marma* are predominance of *agni-vayu guna bhuyisht*. This can be interpreted as *shleshaka kapha* present in the *sandhi* gets vitiated when the *marma viddha* occurs leading *ruja*. *Rujakara marmas* are the areas where any deformity causes pain and this is due to minimum tissue damage. *Manibandha Marma*- Two in number and located in the area of two *anguli* at *manibandha sandhi* (wrist joint). It is a *sandhi marma* and width of *manibandha marma*, lies the inter-carpal ligaments and nerves. To overcome circumstances we must know the vital parts of our body along with its anthropometric dimensions so that we can take proper care to secure them from injuries.

Imaging Techniques

As a diagnostic tool, radiography has proved of great value in detection of the early stages of diseases, when the possibility of cure is greatest. But here as far as concern to our study we have collected X-ray report to rule out various nature of injury on the basis of imaging techniques with help of clinical examinations.

Goniometer

Having full wrist range of motion is really important for day to day function. When wrist movement is limited, it causes pain, impairs function and makes us predisposed to wrist injuries. When we talk about wrist range of motion, we are looking at how much movement there is at the wrist. The main movements at the wrist are flexion and extension i.e. bending and rotation of wrist. Normal wrist range of motion usually refers to how much the wrist bends and rotates. There is also small amount of rotation at the wrist, typically measured when the wrist is bent. Active range of movements shows the capability of the patient to use his muscles within the constraints of pain. It may be diminished if the muscles are weak. Passive range of movement show how much destruction of joint articulating surfaces, and resultant adhesions have occurred. Limitation of joint movement, both flexion and extension suggests intra-articular pathology. The most accurate way to measure wrist range of motion is to use a goniometer. A goniometer is essentially a specially designed protractor that measures joint angles.

Acharya Sushruta in his *Marma adhyaya*.^[13], *Acharya Charak* in his *Trimarmiya siddhi adhyay*.^[14] and *chikitsa adhyay*.^[15] *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 *marmabhigta lakshanas*.^[16] 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.^[17]

- 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 Praanasthianti*.” 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 to

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 *BahirPrakostha 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 *Sandhi* (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 *Anguli pramana* of *Manibandha Marma* means, that area where there is maximum chances of injury to the *Manibandha Marma*.

Discussion on the basis of observational study

56 patients were examined according to criteria of assessment given in material and method. The observation and findings are given below.

Age: Total 56 no. of subjects were included in the study, being 20-50 yrs of age as inclusion criteria, the range found in above subjects was 41-50 yrs, 31-40, 21-30 yrs and maximum no. of subjects found were in age group of 41-50 yrs with 46.43%

Sex: Distribution of above subjects was seen in the ratio of 1:1 (male: female) i.e. male and female preponderance was seen with 28 subjects with 50.00%.

Symptoms clinically assessed.

VAS Score (severity grade) seen in 56 subjects is mild in 4 subjects with 7.14%, moderate in 14 subjects with 25% and severe in 38 subjects with 67.86%.

On an average mean and median seen is approximately 5.98.

Frequency of swelling is seen mild in 20 subjects with 35.71%, moderate in 28 subjects with 50% and severe in 8 subjects with 14.29% followed by no tenderness in 1 subject with 1.79% mild tenderness in 2 subjects with 3.57%, moderate in 21 subjects with 37.50%, and severe in no subjects.

Frequency of crepitus in age group (21-30) is seen mild in 4 study subjects with 66.67%, moderate in 8 study subjects with 20.51% and severe in no subjects that is 0.00%.

Frequency of crepitus in age group (31-40) is mild in 1 study subject with 16.67%, moderate in 14 study subjects with 35.90% and severe in 3 study subjects with 27.27%.

Frequency of crepitus in age group (41-50) is mild in 1 study subject with 16.67%, moderate in 17 study subjects with 43.59% and severe in 8 study subjects with 72.73%.

Frequency of instability of joints in age group (21-30) is seen mild in 3 study subjects with 75.00%, moderate in 5 study subjects with 17.86% and severe in 4 subjects that is 16.67%.

Frequency of instability of joints in age group (31-40) is mild in 0 study subject with 00.00%, moderate in 15 study subjects with 53.57% and severe in 3 study subjects with 12.50%.

Frequency of instability of joints in age group (41-50) is mild in 1 study subject with 25.00%, moderate in 8 study subjects with 28.57% and severe in 17 study subjects with 70.83%.

Frequency of range of motion in age group (21-30) is seen nil in 1 study subject with 33.33%, mild in 8 study subjects with 20.00%, moderate in 3 study subjects with 25.00% and severe in 0 subjects that is 00.00%.

Frequency of instability of joints in age group (31-40) is nil in 0 study subject, mild in 17 study subject with 42.50%, moderate in 1 study subjects with 8.33% and severe in 0 study subjects with 00.00%.

Frequency of instability of joints in age group (41-50) is nil in 2 subjects with 66.67%, mild in 15 study subject with 37.50%, moderate in 8 study subjects with 66.67% and severe in 1 study subject.

CONCLUSION

On the basis of observations and detailed discussion, the conclusion is as follows-

Marmas are the certain vital anatomical points on the body surface with specific applied anatomy. *Manibandha marma* being *sandhi marma* and *rujakara marma*, and with reference to *sharir sthana* of *sushruta*, *rujakara marma* are *agni-vayu*, which have its own characters. life threatening but definitely it produces deformity with structural and functional malformation. *Manibandha marma* has been mentioned as the *moola* of *paani*. It is located at the meeting point of *prapani* and *hasta*. *Manibandha marma* is one of the delicate and vital points of the body located in the hand, especially in wrist joint. *Manibandha marma* is located at both the upper limbs and at the junction of the forearm.

The structures involved in wrist joints are, radial, ulnar, median nerve and arteries, Radioulnar and Radiocarpal ligaments. Though the concept of *marma* is related with traumatology. Hence it is necessary to explore the ancient concepts on modern platform on the basis of scientific study and as a preventive measure to be taken. 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, Rheumatoid Arthritis, Osteo- arthritis and Carpal tunnel syndrome. The knowledge of *marma* is one such ancient concept used all over the world for prevention and ensures the diseases since centuries According to *sushruta* size of *manibandha marma* is stated two *anguli pramana*, but the exact landmark of *manibandha marma* where it is situated at *manibandha sandhi*.

To overcome these circumstances we must know the vital parts of our body along with its anthropometric dimensions so that we can take proper care to secure them from injuries. After analysis of statistical data and detailed discussion it is concluded that, When there is any deformity in *sandhi marma* it may lead to marked decrease in mobility and strength of that particular joint. It may also cause emaciation (*Kshinata*), lameness (disability, Defectiveness, extreme Pain) and swelling in the joints. Meaning of *Kunthata* (*Viddha Lakshana* of *Manibandha Marma*).

Acharya Sushruta mentioned that *Manibandha marma* when gets deformed will result in *kunthata*. He stated "*karasya akarmanyatwam*" that means loss of function of hand. The loss

of various movements of *manibandha sandhi* associated with pain (*ruja*), swelling (*shopha*) etc may be considered as “*karasya akarmanyatwam*”.

Sometimes the various ligaments attached to the wrist joint may get any functional deformity, or in the diseased conditions like Rheumatoid Arthritis (*Aamvata*) it may result in severe pain, swelling and loss of function, inoperativeness. Thus this may be associated or correlated to the *kunthata* as explained in our classics. *Dalhana* has clarified the term *kunthata* as inability or inefficiency to function with hand (wrist).

After reviewing symptoms of *manibandha sandhi* affected patients of *Aamvata* (Rheumatoid Arthritis) subjects, it was found that moderate grade of pain, along with it, other symptoms like swelling, tenderness, instability of joints, crepitus, restricted movements was observed.

Wrist joints are affected 80% in *Aamvata* (Rheumatoid Arthritis). According to present study survey, we can say that, maximum no. of subjects were found in age group of 41-50 yrs. By sex of the patients of *Aamvata* (Rheumatoid Arthritis), only stiffness showed a significant pattern. Observation and discussion on outcome of current study shows that degree of range of motion during flexion and extension get significantly decreased involved in wrist joint movements. Thus, from above observations it is concluded that there is association of anatomical changes of wrist joint and *kunthata* in the patients of *Aamvata* (Rheumatoid Arthritis) are related with *viddha lakshana* of *manibandha sandhi marma*.

So the present research work was undertaken to establish the applicability of *marma sharir*.

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