

A Critico-Anatomical Study of *Prabahu Marma*

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Abstract

Marma Sharir is one of the prominent subjects in *Ayurveda*. They are the important anatomical landmarks which are the confluence of muscles, veins, ligaments, bones and joints. In these places *Prana* (life) resides especially by nature; hence when *Marma* is injured, they cause their respective consequences. *Acharya Charak* has divided *Baahu* in three parts i.e., *Prabahu*, *Prapani* and *Hastha*. *Prabahu* contains 4 *Marma* which are *Aani*, *Urvi*, *Lohitaksha*, *kakshadhara*. *Marmas* are very important from traumatological point of view, any trauma at these points can cause death or pain equivalent to pain of death. According to prognostic and structural classification, *Prabahu Marma* is classified under *Vaikalyakara Marma*. The science of *Vaikalyakara Marma* is an ancient surgical anatomy of orthopaedic surgery and neurosurgery. *Marma* is one of the different passage of disease. To these diseases successfully it is very important to find out actual location, anatomical composition, and vulnerable structures of *Prabahu Marma*. This work is an attempt to present a proper guideline of the exact location, composition, structural anatomy of *Prabahu Marma* and what kind of internal structures involved in it which make *Prabahu Marma* a *Vaikalyakara Marma*. During dissection, various articulations were found in area of *Prabahu (Aani, Urvi, Lohitaksha, Kakshadhara) Marma* which is predominant in tendon, ligament, arteries, veins and nerves.

Keywords: *Prabahu Marma, Ayurveda, Sharir*

Introduction

Ayurveda is a traditional healing system which means “the science of life”. The science of *Marma* (vital points), i.e., *Marma Vigyaniam* is an extraordinary and dynamic part mentioned in *Ayurvedic* texts that has a tremendous value while performing surgery. *Ayurveda* is one of the most reliable and complete medical science. The union of *Mamsa*, *Sira*, *Snayu*, *Asthi* and *Sandhi* are called as *Marma*. *Acharya Sushruta* stated every aspect of *Marma* like definition, signs and symptoms of *Marma* injury. *Marmas* are certain vital points spread all over the surface of the human body. *Ayurveda* described the term *Marma* as vital points of the body which causes death on traumatic injury^[1].

The description on *Marma* is available in “*Charak Siddhi*” and “*Trimarmiya Chikitsa*” chapters in *Charaka Samhita*, “*Marma Vibhaga*” chapter in *Ashtang Sangraha* “*Shariravichaya Sharir*” chapter in *Kashyapa Samhita*. Many different *Marma* regions are described in *Ayurvedic* texts along with their specific effects on both body and mind.

The word *Marma* is derived from “*Mri Dhatu*” + “*Manin*” *Prataya* which means which causes death^[2]. In *Ayurveda*, a 107 point *Marma* system was developed by an ancient Indian surgeon *Sushrut*^[3]. *Marma* sites are present over human body which are classified under various categories based on position, structure, effects of injury and measurement. *Marma* are classified on the basis of their position i.e., 44 in *Shakha*, 26 in *Kostha* (12 in *Udara* and *Urha* + 14 in *Pristha*) and 37

in *Urdha Jatrugata*. *Acharya Charak* has divided *Baahu* in three parts i.e., *Prabahu*, *Prapani* and *Hastha*^[4]. *Prabahu* contains 4 *Marma* which are *Aani*, *Urvi*, *Lohitaksha*, *kakshadhara*. *Marmas* are very important from traumatological point of view, any trauma at these points can cause death or pain equivalent to pain of death.

According to *Parnama Bhedena* (based on injury consequences) it is classified into 5 types. *Vaikalyakara Marma* is one among this classification. *Urdhwa Shakhagata Vaikalyakara Marma* are 6 in number. They are *Kurcha*, *Koorpara*, *Aani*, *Urvi*, *Lohitaksha* and *Kakshadhara*. The science of *Vaikalyakara Marma* is an ancient surgical anatomy of orthopaedic surgery and neurosurgery. *Marma* science has importance with sports science and military science. *Acharya Sushruta* quoted that knowledge of *Marma* are the half of the knowledge of surgery^[5].

Discussion

There are regions in the body which are vulnerable to injury and which should be protected during surgery. *Acharyas* recognized the need to explain them under a separate title; the *Marma*. The concept of *Marma* involves the regional description along with applied aspects and surface anatomy. As *Acharyas* had opined these regions as the abode of *Prana*, they can be considered as physio-anatomical entities. In *Ayurvedic* literature there are 107 *Marmas*. Out of the 107 *Marmas*, 22 are located in the upper extremities. *Aani*, *Urvi*, *Lohitaksha* and *Kakshadhara Marmas* are located in the arm.

1. *Aani Marma*

As per the reference available from classics, *Urdhvamukha Aani Marma* is situated 3angula above the *Kurpara Sandhi*. Here the 'Urdhvam' means above the elbow and *Marma* located in the distal 1/3rd of Arm region. Anatomically Arm region is divided mainly into two compartments as-Anterior and posterior. Clinically length of the Arm divided into proximal, middle and distal one third. So, in the upper limb it should be understood that distal one third of Arm region is the location of *Aani Marma*. The exact location is not precisely mentioned in classics, but it can be understood that *Urdhwashakhagata Aani Marma* is located at 3angula above elbow in distal 1/3rd of Arm on both sides (front and back of Arm) based on the classical description of *Urdhva Mukha*. Hence as Arm region is a broad area extending from shoulder joint to elbow joint with a long bone humerus completely packed with muscles which are divided into two compartments like extensor group of muscle posteriorly and flexor group of muscle Anteriorly, further thick fascia covering it like a sleeve beneath the skin, the specific location of *Aani Marma* point was not able to point though distal one third of Arm region was related. Thus, to identify and explore *Snayu* structure two markings were done with taking standard marking of Arm region in two different compartments accordingly.

Discussion on Location of *Aani Marma*

Acharya Sushruta has stated that *Aani Marma* situated three *Angula* above the elbow. *Acharya Vagbhata* has explained same as *Acharya Sushruta*. Both *Acharyas* have told that it lies distal 1/3 of arm on both side.

The distal arm is divided into two compartment Anterior and Posterior.

Anterior Aspect of Distal Arm

The Arm or brachium is enveloped by a sleeve of deep fascia (brachial fascia), which projects into its interior as medial and lateral intermuscular septa and divides the into anterior and posterior compartments. These septa are well defined in the lower part of the arm and provide additional surface areas for the attachments of muscles. The structures present in the front of the distal Arm below the skin from medial to lateral are branches of medial cutaneous nerve of forearm, basilic vein, lateral cutaneous nerve of forearm and cephalic vein. Below the deep fascia from the medial to lateral structures are Medial antebrachial cutaneous nerve, Inferior ulnar collateral artery, Median nerve, Brachial artery, Distal tendon of biceps brachii, Lateral antebrachial cutaneous nerve (from musculocutaneous nerve), Brachialis muscle. *Acharya Sushruta* clearly mentioned the exact location of the other *Sahkarita Marma* in the sense of middle or lateral or mid region. Like the *Indravasti Marma* in *Jangamasya* and *Urvi Marma* in *Uromadye Urvi*. When it comes to *Aani Marma* there is no classical reference regarding medial or mid regions of extremities. Only one clue is *Snayu* structure is predominant in the *Aani Marma* location. The tendinous hard structures present in the mid of distal third of arm is biceps tendon along with the brachial artery and median nerve. The average length of the biceps brachii tendon is 6.33cm, which is nearer to 'Urdhvam *Trayangulam*'. quotation. In above mentioned area mainly, biceps tendon along with the brachial artery and median nerve were seen. In the medial or lateral sides of distal Arm, tendinous structure was not seen other than the median nerve and brachial artery. Hence this area was excluded related to location of *Aani Marma*.

Posterior aspect of Distal Arm

Posterior compartment of Arm is also called extensor compartment made up of Triceps brachii muscle arising by three heads-long, lateral and medial. In the distal Arm, the long and lateral heads of triceps converge and fuses to form a superficial flattened tendon covering medial head and are inserted into the posterior part of the superior surface of the olecranon process. The structures present in the back of the distal Arm are Triceps brachii tendon, lateral to it the long and lateral heads and below the tendon medial head of triceps along with ulnar nerve and superior ulnar collateral artery in the medial intermuscular septum. Here the tendinous structure present in the mid of the back of the distal Arm and 3 *Angula* above the elbow at this point *Marma* can be located. Note: While describing the *Sahkarita Marma Acharya Sushruta* used the word '*Ubhayata*' for the *Kurcha*, *Kurcha Sira* and *Aani Marma* and *Dalhana* clearly commented that '*Ubhayata iti Urdhvam Adhascha*' which suggest front and back of Arm. the meaning of *Urdhawa* and *Adho* can be taken as upper limb and lower limbs respectively, but at the end of *Sakthigata Marma*, *Sushruta* mentioned that what are the *Marma* are in *Sakthi* (lower limbs), the same *Marma* will present in *Baahu* (upper limb) too and where the name to be changed, *Acharya* quoted new names to few of *Marma* in upper limb. So, there is no query *Sushruta* not explained the upper limb *Marma* in *Shaktighat Marma* and he mentioned *Sakthi Marma* and *Baahu Marma* separately. Here one more controversy is there regarding the total number of *Ubhaya Marma*. The actual number of *Kurcha*, *Kurcha Sira* and *Aani Marma* are 4 in number respectively. If we considered Anterior and posterior surfaces of Arm as one *Marma* individually then the total number of *Aani Marma* in body will be 8, but in the *Ubhaya Marma* context the both surfaces should consider as One *Marma*.

Discussion on *Snayu Marma* & शोफाभिवृद्धि स्तम्बबाहुता

Aani Marma is *Snayu Marma*. Injury on this *Marma* can causes "शोफाभिवृद्धि स्तम्बबाहुता". In generally *Snayu* considered as tendons.

As per *Ayurveda* classics each *Marma* is composed of five basic structures as *Mamsa*, *Sira*, *Snayu*, *Asthi* and *Sandhi*, but out of these five basic elements one component is predominant, therefore this *Marma* comes under these categories. *Aani Marma* comes under *Snayu Marma* based on predominant structure. On the basis of literature study and cadaveric observation, it is stated that in the anterior and posterior surfaces of Arm, *Aani Marma* is mainly composed of Biceps tendon in front with brachial artery, median nerve and cutaneous nerves. At the posterior surface of distal Arm has triceps tendon with branches of cutaneous nerves.

By observing the above structures, it seems that the site is mainly having tendinous part of the biceps brachii anteriorly and Triceps Posteriorly and a terminal part of brachial artery. Biceps brachii and Triceps are the main flexors and extensors of the elbow. Any trauma of the insertion tendon of these muscles restricts the movement of the forearm at elbow (*Sthabdabahuta*). The trauma on another major structure i.e., brachial artery can cause inflammation in the muscular compartment due to collection of blood outside the lumen of the artery (*Shophabhivridi*).

Brachial artery is the major structure present at the site of *Aani Marma* i.e., 3 *Anguli* above the level of *Kurpara Sandhi*. It is the main artery which supplies entire upper limb. The main trunk of it supplies the arm and its terminal divisions ulnar and radial arteries supply the forearm. Even the hand is

also supplied by the branches and arterial arches formed by ulnar and radial arteries. So, any obstruction of the brachial artery or its injury obviously hampers the blood supply of muscles of arm, forearm and hand too. The improper blood supply to the muscles of the upper limb leads to the necrosis of muscle fibers. These changes are more pronounced on the flexor compartment of the forearm. Because of these changes, the muscle fibers become shortened and permanent flexion contracture occurs at the wrist. The shortened and fibrosed muscles can cause increase in the circumference of forearm. This fact can be correlated with “*Shophabhivridi*” as explained by *Sushruta*. The shortening of the muscles of the hand causes flexion contracture of metacarpal-phalangeal and interphalangeal joints too. The injury to the biceps and brachialis situated at *Aani Marma* site hampers the flexion of the elbow joint which restricts the movement of forearm. These pathological changes finally result in a peculiar claw-like deformity at the hand making the entire upper limb disable for any activities. This disability can be correlated with “*Sthabdabahuta*” as explained by *Sushruta*.

Discussion Based on *Pramana*

In *Ayurvedic* classics it is mentioned that each *Marma* has individual dimension as half *Angula*, one *Angula*, two *Angula*, four *Angula*. In *ayurvedic* text dimension of *Marma* is not mentioned in terms of length, breadth, depth. *Aani Marma* dimension is half *Angula*, it's around 0.97cm. So, measurement of this *Marma* is determined under one cm circumference and depth. Therefore, the measurement of this *Marma* is ascertained within half *Angula* circumference and depth.

On the basis of literature study and cadaveric observation it is stated that the following structure are coming under the circumference and depth of half *Angula*.

Anterior Aspect of Arm

Superficially the tributary of basilic vein present along with branches of medial antebrachial cutaneous nerve of Arm noted at the *Aani Marma* location, which are running antero-medial aspect of Arm towards forearm.

The strong Distal biceps tendon was forming from the muscle of biceps brachii in the mid of Arm at *Aani Marma* location. Medial to the tendon the brachial artery located with its inferior ulnar collateral artery branch.

The Median nerve lies on the medial side of brachial artery Deep in the location of *Marma* musculocutaneous nerve of arm present with few muscular branches from the brachial artery.

On the Posterior Aspect of Arm

On the posterior aspect of mid of the distal one third of Arm, the following structure are coming under the circumference and depth of half *Angula*

- Branches of posterior cutaneous nerve of Arm from radial nerve present at the *Marma* site
- The triceps tendon is a tough, flexible tissue attaches the triceps muscle to the ulna.
- Below the tendon of long head, the tendon of medial head of triceps present along with Radial nerve branches and branches of profunda brachii artery were located at the *Marma* site.

2. *Urvi Marma*

Urvi Marma is located in the middle of arm (*Baahu*). But it is not clear whether it is anterior or posterior or medial or

lateral. Therefore, the structures located in the middle of the arm on all the aspects should be considered.

Discussion on Location of *Urvi marma*

Acharya Sushruta has stated that *Urvi Marma* situated middle of the arm above the elbow. *Acharya Vagbhata* has explained same as *Acharya Sushruta*. Both *Acharyas* have told that it lies middle of the arm.

On the basis of classical description, the location of *Urvi Marma* can be considered as middle of arm. Here the region in the middle of arm in both anterior and posterior compartment can be taken as *Urvi Marma Sthana* as specific location is not mentioned. In the anterior compartment, the region where median nerve crosses the brachial artery and the structures around it can be considered. In the posterior compartment, the region of spiral groove and the structures around it can be considered.

Anterior Aspect of Middle of Arm

The structures present in the front of the middle Arm below the skin from medial to lateral are medial cutaneous nerve of forearm, Basilic vein. Below the deep fascia structures are Median nerve, ulnar nerve, brachial artery, Biceps brachii, Coracobrachialis.

Posterior Aspect of Middle of Arm

In the posterior compartment, the region of spiral groove and the structures around it can be considered.

The structures present in the back of the middle Arm are Radial nerve and the profunda brachii artery in the groove.

Discussion on *Sira Marma* & शोणित क्षयात् बाहुः शोषः *Urvi Marma* is *Sira Marma*. Injury on this *Marma* can causes “शोणित क्षयात् बाहुः शोषः”. In generally *Sira* considered as nerves.

Urvi Marma comes under *Sira marma* based on predominant structure. On the basis of literature study and cadaveric observation, it is stated that in the anterior and posterior surfaces of middle of Arm, *Urvi Marma* is mainly composed of Biceps brachii front with brachial artery, median nerve and ulnar nerve. At the posterior surface of middle of Arm has Radial nerve and the Profunda brachii artery.

By observing the above structures, it seems that the site is mainly having part of the brachial artery and Median nerve anteriorly and Radial nerve posteriorly.

Brachial artery is the frequently injured artery in the upper extremities. Injury to brachial artery will leads to brisk bleeding, expanding pulsatile hematoma, pale and cold extremities, absent or weak radial and ulnar pulses and associated profound neurological deficits. Median nerve injury at this level leads to paralysis of limb below the site of injury. The mid shaft of humerus is fractured, the radial nerve may become stretched or transected in this region leading to permanent damage and loss of function. The symptoms usually include wrist drop (due to denervation of the extensor muscle) and sensory changes over the dorsum of the hand. Due to above said reasons, there will be *Lohita Kshaya* which leads to *Sakthisosha*. Since *Lohita Kshaya* is the main *Lakshana* and *Sira* is the important *Marma* involved here. So, it is grouped under the category of *Sira Marma*.

3. *Lohitaksha Marma*

Acharya Sushruta has described the location of *Lohitaksha Marma* above the *Bahvi Marma* and below the shoulder joint

i.e. at the base of the arm. Considering the facts said by *Acharya Sushruta* and correlating it with the modern medical science, the exact location of *Lohitaksha Marma* lies at the medial side of surgical neck of the humerus close to the insertion of pectoralis major muscle. *Acharya Sushruta* described the structure of *Lohitaksha Marma* as *Sira Marma*. It is clear that vessels and nerve are in abundance at the exact location of *Lohitaksha Marma*.

Discussion on Location of *Lohitaksha Marma*

Acharya Sushruta has stated that *Lohitaksha* is located exactly above the *Urvi Marma* and below the *Kaksha Sandhi* and the root of the upper limb. *Lohitaksha Marma* is located above the *Urvi*, below the *Kaksha Sandhi* in the *Baahumoola*. The brachium or the arm is considered from the lower border of teres major muscle. Above that region is considered as axilla. Therefore, the *Baahumoola* can be considered as the region of third part of axillary artery.

Structures considered under the *Lohitaksha Marma* are Subscapularis, Pectoralis major, Latissimus dorsi and Teres major muscles. Axillary artery, Axillary vein, Axillary nerve and branches of cord of brachial plexus lies in the close scenario of this Marma. Brachial artery, Median nerve and ulnar nerve are also seen under the *Lohitaksha Marma*.

Discussion on *Sira Marma* & “लोहित क्षयेण मरणं पक्षाघातः”

Lohitaksha Marma comes under *Sira Marma* based on predominant structure. On the basis of literature study and cadaveric observation, it is stated that axillary artery is divided into three parts by pectoralis minor muscle, in the area of *Lohitaksha Marma* third part of axillary artery and its branches i.e., Subscapular artery, Anterior circumflex humeral artery, Posterior circumflex humeral artery is present.

According to Dr. Patil the brachial artery, axillary vein and brachial plexus at the lateral border of pectoralis major, should be considered in this *Marma* [6].

Trauma near the axilla damages axillary vessels and nerves leading to atrophy of the limb and profuse bleeding leads to death. Injury to axillary nerve & musculocutaneous nerve causes paralysis and a sensory deficit [7]. After overlooking the entire description of *Lohitaksha Marma* there are some important points which is worth to be noticed. *Acharya Sushruta* has described total 44 *Vaikalyakara Marma* and *Lohitaksha* is one among them [8]. *Vaikalyakara Marma* causes only deformity but not death as it is predominant of *Soma Guna* [9], but while describing the injury results of *Lohitaksha Marma*, death due to loss of blood i.e., hemorrhage has been mentioned by *Acharya Sushruta*. This really explores the keen vision of *Acharya Sushruta*. In *Sushruta Sharir sthana* 6/23 it has been clearly mentioned that *Vaikalyakara Marma* sometimes cause even death when these are greatly injured [10].

At this *Marma*, the predominant anatomical constituent is axillary artery accompanied with axillary vein, Musculo-cutaneous nerve, median nerve and ulnar nerve. An injury damaging nerves alone may cause paralysis. On the other hand, with the implication of axillary artery with nerves may cause wasting too. Fractures of the upper end of the humerus may damage the axillary nerve and circumflex humeral artery. This may cause to a partial paralysis and partial wasting.

4. *Kakshadhara Marma*

Kakshadhara are devoid of *Asthi*, *Sandhi* and *Sira*. The word *Kaksha* means related with the armpit. The word

Kakshadhara means the part of the body where the upper arm is connected with the trunk, i.e., the shoulder joint. *Kaksha* means the *Bahu Moola*. Which are two in number. *Kakshadhara Marma* is situated between the region of arm and the breast. Injury to *Kakshadhara Marma* will be led to *Pakshaghata* [11] that is the paralysis of the one side. As per the description, *Kakshadhara Marma Sthana* is lies in between the *Kaksha* and *Vaksha* but as the name indicates it is more related to *Kaksha*. It is situated in the region of the body where the upper arm is connected with the trunk. Any injury to this particular *Marmasthana* will lead to *Pakshaghata* that is paralysis [12].

Discussion on Location of *Kakshadhara Marma*

As per the available references from the *Samhitas*, the exact location of *Kakshadhara Marma* is mentioned as between *Kaksha* (Axilla) and *Vaksha* (Chest) [13], that will be more related to *Kaksha*. The *Kaksha* region refers to root of the arm i.e., the joint which connects the arm to the shoulder known as *Kaksha Sandhi*. *Vaksha* is the region above the *Hrudaya* (Heart) and below the *Kanta* (Neck). It may be considered as the subclavicular region and the region above the breast. The word *Dhara* means bearing or holding. Hence it is named as *Kakshadhara*, it is assumed that it holds the *Kaksha* region with the help of muscles and ligaments. So, the location of the *Marma* is in between the chest and *Kaksha Sandhi* but nearer to the *Kaksha Sandhi* as the name indicates. Specifically, the *Kakshadhara Marma Sthana* is to be considered just below the clavicle nearer to the *Kaksha Sandhi*. The muscles, ligament, blood vessels and nerves in the subclavicular and brachial plexus region are related to the *Kakshadhara Marma Sthana*.

Mamsa

Acharya Sushruta has described 10 *Peshi* (Muscles) in *Kaksha* region. The sub clavicular and shoulder region has been dissected and observed the muscles and other structures. The following muscles were studied and identified; Pectoralis major, pectoralis minor, deltoid, coracobrachialis, bicep brachii, subscapularis, trapezius, supraspinatus, infraspinatus, teres major, teres minor, and triceps brachii. These 10 muscles may be correlated with the concept of *Acharya Sushruta*.

Sira

Acharya Sushruta explains that *Siras* (Vessels) are present in *Marmas*. They nourish the ligaments, bones, muscles and joints. The following blood vessels are observed in the *Marmasthana*; Superior thoracic artery, lateral thoracic artery, thoraco-acromial artery, circumflex scapular artery, thoracodorsal artery, anterior and posterior circumflex humeral artery, axillary vein, brachial vein, cephalic vein, subclavian vein, suprascapular artery, superficial cervical artery. These blood vessels may be compared with the *Siras* present in *Marmasthana*.

Nerves

The following nerves were observed in the sub clavicular and shoulder region related with *Marma Sthana* [14]. Posterior sub clavicular nerve, cutaneous branches from axillary nerve, cords of brachial plexus, axillary nerve, medial and lateral pectoral nerve, median nerve.

Snayu

According to modern explanation the following ligaments are

found during dissection. Superior, middle and inferior glenohumeral ligament, coracoacromial ligament, capsular ligament, acromioclavicular ligament, transverse humeral ligament. The fascia that has been observed are the deep fascia covering the deltoid, subscapular fascia, clavipectoral fascia. Since *Snayus* does the Anga Bandhan, these ligaments may be compared with *Snayu* in *Marmathana*.

Discussion on Snayu Marma & “त्र लोहित क्षयेण पक्षाघातः”

As per *Rachana Sharir* the *Kakshadhara* is a *Snayu Marma* according to *Sushruta* and *Sira Marma* according to *Vagbhata*. According to *Viddhalakshana* it is *Vaikalyakar Marma*.

The *Snayu Marma Viddhalakshana* are *Akshepaka* (Convulsion), *Stambha* (Stiffness), excessive *Ruja* in *Snayus* (Excessive pain in ligaments), *Yanasthana Ashakthi* and *Vaikalyatha* (Deformity) in *Anga*. In the case of *Kakshadhara Marma Vidha* the symptoms explain is *Pakshaghata*. It is a *Snayu Marma* and *Snayu* observed in relation to *Marma* are glenohumeral ligaments, coracoclavicular ligament, transverse humeral ligament, coracoacromial ligament, coracoclavicular ligament, and the clavipectoral fascia. Injury to these ligaments will lead to the disability of joint. The clavipectoral fascia is a very important structure that protect the axillary vessels and nerves. The structure piercing the fascia are thoraco-acromial artery, cephalic vein, and lateral pectoral nerve. An injury to clavipectoral fascia will damage these structures. An injury to the fascia can damage axillary artery, axillary vein, and axillary nerve. These all will lead to the disability of the arm. Acharya Vagbhata highlighted the importance of *Siras* in this region. The blood vessels related to *Kakshadhara Marma* are axillary artery, superior thoracic artery, thoraco-acromial artery etc. An injury to these vessels will result in severe blood loss and lack of blood supply to the muscles of arm. This will lead to *Pakshaghata*.

In Erb's palsy structure involved are upper trunk of the brachial plexus, especially suprascapular nerve, musculocutaneous nerve and axillary nerve, axillary vessels, injury in the armpit causes Erb's palsy. The symptoms in *Kakshadhara Marma* and Erb's palsy are same.

Conclusion

Following conclusions are drawn

1. Tendon of biceps brachii anteriorly and triceps posteriorly and a terminal part of brachial artery should be the appropriate structure which can be regarded as *Aani Marma*.
2. Anatomically *Urvi Marma* may be correlated with the brachial artery and median nerve anteriorly and radial nerve posteriorly.
3. Axillary artery accompanied with axillary vein, musculocutaneous nerve, median nerve and ulnar nerve are most appropriate structures which can be regarded as the *Lohitaksha Marma*.
4. Anatomically *kakshadhara Marma* may be correlated with the clavipectoral fascia and its structures axillary vessels and nerves.

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