



**A STUDY ON AMSA MARMA – ANATOMICAL LOCATION RELATED STRUCTURES AND CLINICAL RELEVANCE.**

**ANJANA V.<sup>1\*</sup> JYOTHI V.<sup>2</sup>**

**ABSTRACT:**

*Marma* is one of the special concept elaborated by *Ayurveda*. They are the vital areas in human body which should be protected from injury, on injury they may produce pain, permanent deformity or fatal effects. *Marma* is the term used for vital spots in *Ayurveda*. *Marmas* are the areas where *Mamsa*, *Sira*, *Snayu*, *Asthi* and *Sandhi* comes together. *Prana* or life resides in these vital spots of body ; and injury to these *marmas* may lead to death, death like pain or permanent deformity. There are 107 *marmas* explained in both *Astanga Hrudaya And Susrutha Samhitha*. Both the *Acaryas* classified *Marmas* on the basis of predominant structure at the site of *mama* and on the basis of effect on injury. *Acharya* explains the *Marma vidha lakshana* in detail. Depending upon the type and severity of injury various signs and symptoms are produced. Detail knowledge of *Marma* is important from surgical point of view. *Amsa Marma* is one among the one hundred and seven *Marmas*. It is one of the *Prustagatha Marma* and is present in the *prusta* or posterior part of the trunk region at the junction of arm and trunk at its upper aspect between the head and shoulder. *Amsa Marma* injury leads to rigidity to upper limb. Rotator cuff injury is one of the commonest conditions seen in this region and the explanations of *Amsa Marma* and supra spinatous portion of rotator cuff are compared in this work.

**Keywords**

Amsa marma, Amsa, Marma, Rotator cuff, Prusta marma

<sup>1\*</sup>Assistant Professor, Department of Rachana Sharir, VPSV Ayurveda College Kottakkal, Kerala, INDIA

<sup>2</sup>Professor, Department of Rachana Sharir, PNPS Ayurveda College, kanjagad, Kerala, INDIA

Corresponding Email id: [anju86anjana@gmail.com](mailto:anju86anjana@gmail.com) Access this article online: [www.jahm.co.in](http://www.jahm.co.in)

Published by Atreya Ayurveda Publications under the license CC-by-NC-SA

## INTRODUCTION

*Marmas* are the specific vital spots in our body. The knowledge of *marmas* is very important for a surgeon while performing procedures on human body. Knowledge of *Marma* is considered as half the knowledge of *Shalyathantra*<sup>[1]</sup>. *Marma* is the one which destroys or kills so *marmas* are those spots or areas in the body injury to which destroys a person or causes permanent deformity. The human body consists of 107 *marmas*. They are classified according to region, predominance of structure present in them and according to effect on injury. Out of 107 *marmas* sixty-four are present in the limbs, thirty seven in the head and neck, twelve in the chest and anterior abdominal region and fourteen in the posterior part of the trunk. The *marmas* are classified in to *Saddyopranahara*, *Kalatharapranahara*, *Vishalyagana*, *Vyakalyakara* And *Rujakara* on the basis of effect of injury. They are again classified in to five on the basis of predominant anatomical structure into *Mamasa Maram*, *Sira Marma*, *Snayu Marma*, *Asthi Marma* And *Sandhi Marma*<sup>[2]</sup>. *Amsa Marma* one among the one hundred and seven *marmas*. It comes under *Prustagatha Marma* and is present at the posterior aspect of trunk at its upper aspect

between the head and shoulder. *Amsa marma* injury leads to rigidity to upper limb<sup>[3]</sup>.

Present study is aimed to analysis the anatomical structure at *Amsa Marma* and its *Viddha Lakshana* (Injury effect). Present study is been taken up with an idea of updating and better understanding of *Amsa Marma* in accordance with the modern anatomy and applied anatomy and also analyze *Viddhalakshan* of *amsa Marma* in relation to *supraspinatus portion of rotatorcuff injury*.

### Marma

The term *marma* is derived from *mru* and *manin prathyaya*<sup>[4]</sup>. It can be defined as the one which can produce death like miseries or death. *Marma* is the one which kills when it is injured; as it is the areas where *mamsa*, *sira*, *snayu*, *asthi* and *sandhi* meets together and by nature *Prana* or life resides here. If such *marmas* are injured they will produce fatal symptoms like convulsions and leads to death<sup>[5]</sup>.

### Amsa marma

*Amsa* means top of the shoulder or shoulder blade or top of the arm<sup>[6]</sup>. The word *amsa phalak* is used for scapula. *Amsa marma* is one of the *prustagatha maram* or *marma* present on the posterior part of the trunk. There are two *amsa marmas* on either side. The *marma* is located in between the upper arm (*bahu*) and side of neck (*greeva*) on

either sides, and the *marma* binds the scapular region with shoulder region. Probe the index finger on acromian protuberance and glide the finger slowly towards the base of cervical triangle, few centimeters immediately after bony structure it is possible to feel tender amsa marma<sup>[7]</sup>. It measures *Half angula*.

Anatomically The *Amsa marma* is classified under *Snayu Marma*. According to effect on injury *amsa marma* comes under *Vaikalyakara Marm*. Injury to *amsa marma* leads to *Sthabdagathratha* or rigidity to upper limb <sup>[8]</sup>.

The point or area of amsa marma is located in the region of rotator cuff which strengthens and stabilizes the shoulder joint.

#### **Rotator cuff**

Rotator cuff is a musculotendinous cuff formed by the flattened tendons of supraspinatus, infraspinatus, teres minor and subscapularis. The four muscles connect the scapula to the humerus.

The flattened tendon of these four muscles blends with the capsule of shoulder joint and strengthens it.

It is called rotator as the tendons are concerned with rotation of the shoulder joint and is called 'cuff' as it is like cuff of the shirt covering the capsule of shoulder joint.

Supraspinatus muscle takes its origin from supraspinous fossa and gets inserted into

greater tubercle of humerus. It is innervated by suprascapular nerve, it steadies the head of the humerus during movements and helps to initiate abduction.

Infraspinatus muscle takes its origin from infraspinous fossa and teres minor muscle from lateral border of scapula and both will get inserted into greater tubercle of humerus. They are supplied by suprascapular and axillary nerve respectively. Both act as lateral rotators of arm.

Subscapularis muscle takes its origin from subscapular fossa and is inserted into lesser tubercle of the humerus and supplied by upper and lower subscapular nerve <sup>[9]</sup>.

#### **Supraspinatus portion of rotator cuff injury**

Rotator cuff includes four muscles but Supraspinatus muscle is the most injured muscle. Overuse or trauma is the cause for injury there will be rapid swelling of the tendon. Due to degeneration there will be deposition of calcified substance within the tendon. This gives rise to severe pain.

The person will be holding the arm by the side of the chest in almost immobile position. Movement of shoulder joint is very restricted and is almost impossible due to pain. Particularly the abduction will be very painful <sup>[10]</sup>.

## DISCUSSION

*Amsa marma* is one of the *prustagatha maram or marma* present on the posterior part of the trunk. There are two *amsa marmas* on either side. The *marma* is located in between the upper arm and side of neck on either sides, which binds the scapular region with shoulder. Rotator cuff muscles i.e. supraspinatus, infraspinatus, teres minor and subscapularis are taking their origin from the scapula and getting inserted to humerus. They connect scapula and shoulder joint. Apart from deltoid and latissimus dorsi they are the main muscles which are connecting the posterior part of the trunk and arm. Not only they connect between scapula and humerus they reinforces the capsular ligament of shoulder joint by blending with joint capsule.

The muscles are mainly responsible for the abduction of shoulder joint.

Considering this the *amsa marma* can be understood as the area where rotator cuff tendons are present. The subscapularis can be excluded being the least injured muscle.

The *amsa marma abhighatha lashanas* can clearly correlate with the injury of supraspinatus portion of rotator cuff. Even though teres minor and infraspinatus are also contributing to rotator cuff the supraspinatus tendon is the most commonly injured one.

Injury to the supraspinatus tendon leads to severe pain and difficulty in abduction of arm. It gradually leads to painful arc syndrome and frozen shoulder. And it leads to functional deformity or inability in normal range of movements<sup>[11]</sup>.

*Amsa marma abhighada lakshana* is mentioned as *stabdagathrada* that means inability to move the limb of rigidity to the limb, it is also mentioned as *snayumarma* and *vaikalykara marma*. *Snayu* here refers to tendons – Achary *susurutha* mentioned tendon as *vrutha snayu* and named it as *kandara*. *Vaikalya* could be a structural or functional deformity. In supraspinatus tendon injury there will be rigidity of limb, and structurally it is a *snayu* and there will be *vaikalya* is the person will be disabled as there will be functional loss of upper limb.

Considering all these anatomically we can consider supraspinatus tendon as *Amsa marma*, which is located at the top of shoulder joint under cover of deltoid muscle and in between acromion process and greater tuberosity.

## CONCLUSION

Considering the above description of *Amsa marma* and the description of supraspinatus tendon the *Amsa marma* can be understood as the area of supraspinatus tendon, which is present at the top of shoulder joint under

cover of deltoid muscle and in between acromion process and greater tuberosity.

## REFERENCES

1. Vaidya Jadavji Trikamji Acharya (editor). Susrutha Samhitah of susrutha , Shariraathana , Chapter 6, verse no.33. 9th Edition , Varanasi; Chaukhamba Orientalia;2007;375
2. Vaidya Jadavji Trikamji Acharya (editor). Susrutha Samhitah of susrutha , Shariraathana , Chapter 6, verse no.3-8. 9th Edition , Varanasi; Chaukhamba Orientalia; 2007; 369-370
3. Vaidya Jadavji Trikamji Acharya (editor). Susrutha Samhitah of susrutha , Shariraathana , Chapter 6, verse no.26. 9th Edition , Varanasi; Chaukhamba Orientalia, 2007;374
4. Prof C R Agnivesh A Text Book Of Ayurvedic Anatomy, 2<sup>nd</sup> Edition. Thrissur; Harisree Publications, 2017; 219.
5. Vaidya Jadavji Trikamji Acharya (editor). Susrutha Samhitah of susrutha, Shariraathana , Chapter 6, verse no.15. 9th Edition , Varanasi; Chaukhamba Orientalia, 2007; 371
6. Haragovinda Shastri (editor). Amarakoṣa of Amarasinha.. 2nd Kanda, Manushya Varg, verse no.78, Varanasi; Chaukhambha Sanskrit Sansthana, 2006; 295-296
7. S. H Acarya. Science of marma; second edition, Charaka-Home of Ayurveda Jamnagar; 2014;90
8. Vaidya Jadavji Trikamji Acharya (editor). Susrutha Samhitah of susrutha , Shariraathana , Chapter 6, verse no. 9, 13. 9th Edition , Varanasi; Chaukhamba Orientalia, 2007;370
9. B D Chaurasia. B D Chaurasia's Human Anatomy ; Krishna Garg(editor) ; sixth edition, CBS publishers & Distributors Pvt Ltd; 2012; 68-69
10. S Das. Textbook of Surgery; 4<sup>th</sup> edition, S das kolkatha; 2006 ; 454
11. S Das. Textbook of Surgery; 4<sup>th</sup> edition, S das kolkatha; 2006 ; 455-456

### CITE THIS ARTICLE AS

Anjana V., Jyothi V. A Study on Amsa Marma – Anatomical Location related structures And Clinical Relevance. *J of Ayurveda and Hol Med (JAHM)*. 2023;11(1):46-50

**Conflict of interest:** None

**Source of support:** None