

STUDY OF APPLIED ASPECTS OF KAKSHADHARA MARMA W.S.R. TO KALARY PAYYATU

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ABSTRACT

In *Ayurveda*, *Marma* was first documented by *Acharya Charak*. The detailed description of *Marma Sharir* is available in *Samhitas*. *Acharya Sushruta* stated 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. *Acharya Sushruta* believes that *Marma Sharir* covers the half knowledge of surgery. Any injury to these points may results into death and physician expert in *Marma* therapy, patient will cause some deformity. *Acharya Sushruta* explains the *Marmaviddha Lakshanas* in detail. In similar way like *Marma*, there are other ancient indian sciences also in which the vital points of human body are described. Among them *kalary payyatu* is the oldest technique. It is a combat science which is introduced to the world by lord *parshurama* and inspired by *Marma sharir* of *Ayurveda*. The main aim of the study is to understands the *kakshadhara marma* ,its applied aspect and to find out any similarity with vital point explained in *kalary payattu*.

Key words: - *marma*, *kakshadhara marma*, *kalary payyatu*

INTRODUCTION

Marma is one of the most widely described at the same time one of the most debated topics in the *Bruhatrayees*. The word *marma* appeared in Vedic period. In dictionaries the word “*Marman*” means mortal sport, vulnerable point, weak or sensitive part of body, joint or articulation, core of anything, vital structure. *Marma* in *Ayurvedic* classics is illustrated as the vital point in human body, the injury of which leads to termination of life. In olden times a *vaidya* had to deal with more exigencies

during the time of war and it might have been the reason why *marma* was given utmost importance in our *Samhitas*. Descriptions of 107 *marmas* given by all *Acharyas* being classified into five varieties on the basis of structure involved, five on the basis of effect of injury, five on the basis of location on the body.

Kakshadhara marma is one such vital region in human anatomy which falls under the above classification on the basis of structure involved. It is explained as one among the *snayu marma*. Totally there are

27 number of *snayu marma*. *Kakshadhara* and *Vitap* both are considered under *Sira marma* by *Acharya Vagbhata* so he stated that *Snayu marma* are 23 in number.

Kakshadhara marma is situated at the shoulder joint (brachial plexus).

Hence this study is aimed to analyses the anatomical structure of *kakshadhara marma* and its *viddha lakshana*. Present work is been taken up with an idea of updating early concept of a better understanding of *kakshadhara Marma* in accordance with the advance anatomical description in view of modern and applied anatomy and also to explore *viddha lakshana* of *kakshadhara Marma* in relation to *pakshaghata*. Name of the *kalary* points are based on their traumatic effect. The knowledge of pathophysiology of injury to *marma* is must be understood by every *Ayurvedic* physician.

So a humble effort is made for a better understanding of this *kakshadhara marma* in accordance with advance anatomical description and to find out any similarity with points explained in *kalary payyatu*.

MATERIALS AND METHODS

1. The *Ayurvedic* literature related to *kakshadhara marma* was studied from various sources like *Brihat - trayee* , *Laghu Trayee* etc.
2. The modern literature related to shoulder joint will be studied.
3. Comparative study of *kakshadhara marma* with *kalary payyatu*, was done.
4. Materials from electronic media and journals related to the subject were reviewed.

NEED OF STUDY

Name	Kakshadhar
Number	02
Site	(at axilla)
Type(acc. to <i>Rachana</i>)	Snayu
Type(acc. to <i>aghataj parinaam</i>)	Vaikalyakar

1. To analyse and explain the concept of *kakshadhara marma* scientifically given in *Ayurvedic* classics.
2. To find out any relation in between applied aspect of *kakshadhara Marma* and vital points explained in *kalary payyatu*.
3. The study related to the subject will be beneficial for self-defence and health.

REVIEW, KAKSHADHARA MARMA

Etymology

हिंसायां“वृत्वदि-हिनिकमिकषिभ्यःसः”. उणां३. ६२. इतिसः

There are two *kakshadhara marma*.

Kakshadhara is devoid of *sira*, *sandhi* and *asthi*

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, ie the shoulder joint. *Kaksha* means *bahu moolam*. *Kaksha* means *bahu moolam* which are two in number. *Kakshadhara marma* is situated between the region of arm and the breast. Injury to *Kakshadhara marma* will lead to *pakshaghatha*. *Pakshaghatha* means *Pakshavadha* that is the paralysis of 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 *pakshaghatha*, that is the paralysis.

Table no.01 showing *kakshadhara marma*.

Type(acc.to <i>parimaan</i>)	01 angula
Structures involved	Subscapulari, Pectoralis minor, Brachial plexus Axillary artery, Axillary vein, Axillary lymph node
Sign if injured	Paralysis of arm.

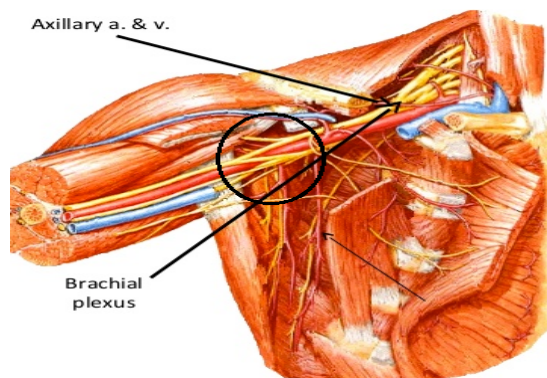


fig.no.01- showing the brachial plexus within circle (contains axillary A.& N.),the site of *kakshadhara marma*.

DESCRIPTION OF KALARY POINT ASSOCIATED WITH KAKSHADHARA MARMA: -

Phanam (फणम):- Location: - Center of the axilla.

Number-02

Symptom if injured: - a) Paralysis of hands
b) Swelling in hands c) Clawing of finger
d) Stiffness or rigidity over the area between neck and upper part of nipples (pectoral region)

BRACHIAL PLEXUS: -

The brachial plexus is a network of nerves that originate in the neck region and branch off to form most of the other nerves that control movement and sensation in the upper limbs, including the shoulder, arm, forearm, and hand. The radial, median, and ulnar nerves originate in the brachial plexus.

Symptoms of a brachial plexus injury:-

Pain

Loss of sensation

Muscle weakness

Paralysis of some or all of the muscles of the shoulder and upper limb

DISCUSSION

Study of *kakshadhara marma* has been carried out by collecting reference from different Ayurvedic literature and correlate it with modern anatomy text books and compare with *marma* explained in *kalary payyatu*.

The *kakshadhara marma* lies in the *kaksha* region, the detail discussion of these points are as follows:

LOCATION

As per the available reference from the *Samhita*,the exact location of *kakshadhara marma* is mentioned as between *kaksha* and *vaksha*,that will be more related to *kaksha*. The *kaksha* region refers to root of the arm,ie the joint which connects the arm to the shoulder known as *kaksha sandhi*.*Vaksha* is the region above the *hrudaya* and below the *kanta*.It may be considered as the subclavicular region and the region above breast. The word ‘*dhara*’ means bearing or holding.Since 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 marmasthana* is to be considered just below the clavicle nearer to the *kaksha sandhi*. The muscles, ligaments, blood vessels and nerves in the subclavicular & brachial plexus region are related to the *kakshadhara marma sthana*.

MAMSA

Acharya susrutha has described 10 *peshi's* in *kaksha* region. The subclavicular & shoulder region has been dissected and observed the muscles and other structures. The following muscles were studied & identified;

Pectoralis major & minor, Deltoid, Coracobrachialis, Bicepsbrachi, Subscapularis, Trapezius, Supraspinatus, Infraspinatus, Teres major & minor, triceps brachi.

These 10 muscles may be correlated with the concept of *Acharya Sushrutha*.

SIRA

As such there is no direct reference regarding *sira's* present in *kakshadhara marma* region, but in the context of *marma shareera Acharya Susrutha* explains that *siras* are present in *marma's*. They nourish the ligaments, bones, muscles, and joints. The following blood vessels are observed in the *marmasthana*;

Superior thoracic artery, thoraco acromial artery, lateral thoracic artery, circumflex scapular arter, thoracodorsal artery, anterior circumflex humeral artery, posterior circumflex humeral artery, axillary vein, brachial vein, cephalic vein, subclavian vein, suprascapular artery, superficial cervical artery, the descending branch of occipital artery, circumflex scapular artery and dorsal scapular artery. These blood vessels may be compared with the *sira's* present in *marmasthana*.

NERVES

The following nerves were observed in the subclavicular & shoulder region related with the *marmasthana*.

1. Posterior supraclavicular nerves from the third and fourth cervical nerves
2. Cutaneous branches from the axillary nerve
3. The cords of the brachial plexus
4. The axillary nerve
5. The musculocutaneous nerve
6. The medial & lateral pectoral nerve.

7. The median nerve

According to *kashyapa mastulunga* is the *mulasthana* of *snayu's*. According to *Dalhana* *snayu's* are the rope like structures. Considering these opinions these nerves may be compared with *snayu's*.

SNAYU.

According to the modern explanation the following ligaments are found during the dissection of the subclavicular & shoulder region in relation to the *marmasthana*.

Glenohumeral ligaments. These are again divided into superior glenohumeral, middle glenohumeral and inferior glenohumeral ligaments.

Coracoacromial ligament.

Capsular ligament.

Acromioclavicular ligament.

Transverse humeral ligament.

The fascia that has been observed are the deep fascia covering the deltoid muscle, the subscapular fascia, the clavipectoral fascia and the supraspinatus fascia. The clavipectoral fascia is a strong fascia situated under cover of the clavicular portion of the pectoralis major. It occupies the interval between the pectoralis minor and subclavius, and protects the axillary vessels and nerves.

Since *snayu's* does the *anga bandhana*, these ligaments may be compared with *snayu* in the *marmasthana*.

ASTHI & SANDHI

Acharya susrutha opines that one *asthi* is present in the *bahu* and two in the *amsa phalaka*. The articulation between one *bahu asthi* and two *amsaphalaka asthi* results in *kaksha sandhi*. It is a type of *ulukhala sandhi*. As per the modern reference the articular parts of the humerus, scapula, and clavicle are observed as the bony parts and the joint formed is the glenohumeral joint which is the ball and socket variety of the synovial joint. These

bony parts may be compared as *asthi* in the *marmasthana* and the glenohumeral joint may be compared as *sandhi* in the *marmasthana*.

DISCUSSION ON PRAMANA

All *marma*'s have been explained in terms of definite *pramana* in *samhithas*. It helps in the determination of location of the *marma*. The *pramana* of *kakshadhara marma* has been explained as one *angula*. It is the area occupied by the *marma* in terms of own finger's breadth (*svanguli*). While explaining about the *pramana* of *kakshadhara marma* it is mentioned just as one *angula pramana* without much explanation about its upper limit and lower limit of the site and also regarding the length, breadth and depth of the *marma*. So here the one *angula pramana* is considered equally as length, breadth or as diameter present in the *kaksha* region. This helps to assess the structures present in and around the *marma*.

DISCUSSION ON MARMA VIDHA LAKSHANA

As per *rachananusara* the *kakshadharamarma* is a *snayumarma* according to *Sushrutha* and *sira marma* according to *Vagbhata*. According to the *vidhalakshana* it is a *vaikalyakarma marma*. The *snayu marma vidha lakshana*'s are *ayaama*, *akshepaka*, *sthambha*, excessive *ruja* in *snayu*'s, *yanasthana ashakthi* and *vaikalyatha* in *anga*. In the case of *kakshadhara marmavidha* the symptom explained is *pakshaghatha*. It is a *snayu marma* and *snayu*'s observed in relation to the *marma* are the glenohumeral ligaments, coraco acromial ligaments, coracoclavicular ligaments, the transverse humeral ligament & the clavipectoral fascia. Injury to these ligaments will lead to the disability of the joint. The clavipectoral fascia is a very important

structure that protect the axillary vessels and nerves. The structures piercing the fascia are thoraco acromial artery, cephalic vein and the lateral pectoral nerve. An injury to the clavipectoral fascia will damage these structures. An injury to the fascia can damage the axillary artery, axillary vein and axillary nerve. These all will lead to the disability of the arm. *Acharya vagbhata* highlighted the importance of *sira*'s in this region. The blood vessels related to *kakshadhara marma* are axillary artery, superior thoracic artery, thoraco acromial artery, lateral thoracic artery, circumflex scapular artery, thoracodorsal artery, anterior circumflex humeral artery, posterior circumflex humeral artery, axillary vein, brachial vein, cephalic vein, subclavian vein, suprascapular artery, superficial cervical artery, the descending branch of occipital artery, and dorsal scapular artery. An injury to these vessels will result in severe blood loss and lack of blood supply to the muscles of the arm and shoulder region. This will lead to the disability of the arm. The disability of arm in all these occasions refers to *pakshaghatha* in *Ayurveda*.

Discussion on kakshadhara marma with phanam (of kalary payyatu) :-

The total number of kalary marma are 67 and described by 37 names whereas in ayurvedokt marma are 107 and described by 43 names.

After profound study of both marma shastras, it is found that phanam marma is having common location and up to some extent common traumatic effect.

Phanam and kakshadhar :-

Similarities – in their location – i.e. axilla

Traumatic effect –

कक्षधरे पक्षाघात

Phanam:- Paralysis of hands; Swelling in hands; Claw finger; Stiffness or rigidity over

the area between neck and upper part of nipples (pectoral region)

It is very clear that these two marma's having similar traumatic effect.

This traumatic effect occurs due to Brachial plexus injury.

CONCLUSION:

From the above discussion it is concluded that, *phanam marma* of *kalary payyatu* is having same location as well as same traumatic effects like *kakshadhara marma*.

The structures lies at the *kakshadhara marma* region is brachial plexus only.

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