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

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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

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

27 number of snayu marma. Kakshadhara and Vitap both are considered under Sira marma by Acharya Vagbhat 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
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
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. Pakshaghata 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 marma sthana will lead to pakshaghatha, that is the paralysis.

Table no.01 showing kakshadhara marma.

<table>
<thead>
<tr>
<th>Name</th>
<th>Kakshadhar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>02</td>
</tr>
<tr>
<td>Site</td>
<td>(at axilla)</td>
</tr>
<tr>
<td>Type(acc. to Rachana)</td>
<td>Snayu</td>
</tr>
<tr>
<td>Type(acc.to aghataj parinaam)</td>
<td>Vaikalyakar</td>
</tr>
</tbody>
</table>
Type(acc.to parimaan) 01 angula

Structures involved Subscapulari, Pectoralis minor, Brachial plexus
Axillary artery, Axillary vein, Axillary lymph node

Sign if injured Paralysis of arm.

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 thorasic artery, thoraco acromial

artery, lateral thorasic artery, circumflex

scapular arter,thoracodorsal artery,anterior

circumflex humeral artery,posterior cir-

cumflex humeral artery,axillary vein,brachial vein,cephalic vein,subclavian

vein,suprascapular artery,superficial cervi-

cal artery,th the descending branch of occip-

ital 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 amsaphalaka. The articulation between one bahu asthi and two amsaphalaka asthi results in kaksha sandhi. It is a type of ulukhala sandhi. A 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.
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 marmar’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 vaikalykara marma. The snayu marma vidha lakshana’s are ayaama, akshepaka, shambha, 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, coracoaclovicular ligaments, the transverse humeral ligament & the clavicularly 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 number of kalary marma are 67 and desribed by 37 names whereas in ayurvedokt marma are 107 and desribed 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 –
क़ब्ज़हरे पङ्खाभात
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.

REFERENCES
3. Marma darpanam by acha ya yuduvansham