ANATOMICAL AND STRUCTURAL
CONSIDERATION OF AANI MARMA OF
UPPER EXTREMITY

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ABSTRACT

Marma is one of the unique part and concept of ayurveda which has been discussed in all the classical texts and deeply elaborated by acharya Sushruta in 6th chapter of Sharir Sthana. Marma are several vital points on the body where prana resides and traumatic effect to such points can lead to pain,deformity and even death.So it is necessary to protect these points from injury. The word marma first finds mention in Atharveda. During the Vedic kala the science was prevalent probably because of war period. Marma shastra got a new outlook as a science dealing with Marmabhighta. Marma is explained as the anatomical area where the five – principle anatomical structures Mansa, Sira, Snayu, Asthi, and Sandhi are collectively present. It is the concentrated point of Prana, which gives its vitality. It is a site where pulsation is felt and pain on pressure exists. Thus these points are of utmost clinical and surgical importance.

Keywords:-Marma,marmabhighta,prana.

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INTRODUCTION

The science of Marma (vital point), is an extraordinary part of Ayurveda that has a tremendous value while performing surgery. According to Ayurveda, the knowledge of the position of Marma and Marmabhighta (injuries to vital points) symptoms is essential before performing any surgical treatment. These are the places where the Prana (life force) is said to be situated. Definitions of Marma, types of Marma, symptoms produced after injuries to these Marma, and their treatment are described by nearly all Ayurvedic texts, especially “Trimarmiya Siddhi,” “Trimarmiya Chikitsa,” chapters in Charaka Samhita, “Marma Vibhaga” chapter in Ashtanga Sangraha and “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. Marma range in size from very small to very large. Little injuries to these Marma points or anatomical areas can be as fatal as major injuries anywhere else in the body, so detailed knowledge of these Marma points is crucial for an Ayurvedic physician and surgeon. In Ayurveda, a 107-point Marma points have been described by Sushruta for helping a surgeon to safely operate on the human body.

Marma:

According to Dalhana these vulnerable point are those points on the human body surface on which any kind of trauma or injury may lead to death or symptoms like death. The term Marma means prana, jiva or life. Aacharya Sushruta has described 107 numbers of Marma and described their anatomical classification. According to Aacharya Sushruta the five anatomical structures are basically and essentially involved on Marma point.[1]

These structures are:
1. Mansa
2. Sira
3. Snayu
4. Asthi
5. Sandhi
Mansa marma are 11, sira marma are 41, snayu marma are 27, asthi marma are 8 and sandhi marma are 20 in number.

Depending upon traumatic effects and prognosis various types of marma mentioned in Ayurveda as follows.

1. Sadhayapranahar (Sudden death)
2. Kalantarpranahar (Death within short period)
3. Vaikalyakar (Deformity due to trauma)
4. Vishalyaghna (Person lives until removal of foreign body)
5. Rujakar (continuous pain due to trauma)

Sadhayapranhar marma are 19, Kalantarpranahar marma are 33, Vishalyaghna marma are 3, Vaikalyakar marma are 44 and Rujakar marma are 8 in number.

Vaikalyakar Marma

Marma which cause deformity on getting injured are vaikalyakar marma. It is predominantly composed of soma tatva or guna. Due to the effect of stability or coldness brought by soma guna the jala dhatu supports the pranas or vital life forces. These are 44 in number.

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Acharya Sushruta has described aani marma as a vaikalyakar marma and a snayu marma. These are 4 in number. In this study aani marma of urdhva shakha (upper extremity) is taken for study which are 2 in number, one in each limb.

Aani Marma:

According to Shabdkosh, the meaning of Aani:

- A boundary limit
- The part of the leg just above the knee and the corresponding part in upper limb is just above elbow.

Location—three Angula above on either side of the Kurpar are the Aani. Snayu is a term which is explained elaborately in classical texts but yet it is unable to point out exact structure related with it in human body.

SNAYU

Literally the term Snayu means to bind. It is explained as a structure which helps in binding the joints and helps the body in weight bearing. Structurally it has been described something similar to a fibrous in nature.

Snayu is said to be originated from Medas along with Sira, Snayu by Khara Paka and Sira by Mrdupaka. According to Sargandhara Snayu is a structure which binds Mamsa, Asthi and Medas of the body. Sushruta while emphasizing its importance has mentioned that an injury to Snayu will cause more harm to human body than caused by Asthi, Peshi, Sira and Sandhi.

Snayu has also been mentioned as a type Marma. These are 27 in number and out of these 20 are situated in Shakha. Majority of these Snayu Marma are Vaikalyakara in nature.

Snayu hold the Sharir together by joining the bones at joints like the ropes hold the wooden planks of a boat together. Like a strong boat can carry heavy load, Snayu enables body for weight bearing.
In human body the joints are held together by ligaments and joint capsule. The tendons crossing the joint also help in its stability. The muscles which cover the joint also provide it with strength and protection. Ligaments, tendons and fasciae are all made up of connective tissues. They are histologically similar in structure and they differ in the way they connect structures.

Ligaments bind joints by connecting bones. They provide stability to the joint. While tendons connect bones to muscles. They enhance the stability of the joint which they cross. Sinew is the term used for tendon in older texts. It means a fibrous tissue which supports and gives strength. This term has similar meaning to that of Snayu. Sinew term is also used for nerve and the term nerve means to give strength or vigor. Fasciae are structure which enclose, separate and attaches muscles. It literally means a band, bandage, ribbon or bundle.

The number of Snayu mentioned by Sushruta Samhita are 700.[11] These are further divided region wise. But it is still unclear about the anatomical structures which make up these Snayu in our body. There are many structures like tendons, ligaments, nerves, muscle tissue etc. which can be related to Snayu.

It is really difficult in current scenario to identify and establish the number and classification of Snayu mentioned by Acharya Susrutha. Structurally and functionally the structure should be having a binding property and should be fibrous in nature. Even though the term Snayu comes across a lot of time in classics in relation to Nidana and Chikitsa, in context of Sharir Rachana the explanation are inadequate and not self-explanatory. There is a lack of detailed study regarding the exact structure and enumeration of Snayu mentioned by Acharya Sushruta.

**MATERIAL AND METHODS**

1) Review of Ayurveda literature from Ayurveda classics including relevant commentaries.
2) Relevant modern literature has been consulted for comparative study and drawing inference and justification.
3) Other print media, online information, journals, books, magazines etc.

**DISCUSSION**

The location of Aani Marma is three Angula above on either side of the Kurpar as mentioned in classics. Its Pramana is ½ Angula. [12] Here mainly biceps tendon on anterior aspect and triceps tendon on posterior aspect at the distal end of the upper arm are present. Due to predominance of tendon it is considered as Snayu Marma. Many other structures are also present in the area such as brachial artery, median nerve, radial nerve, ulnar nerve, musculocutaneous nerve, coracobrachialis muscle, biceps brachii and triceps brachii. Muscles, blood vessels and other tissues are present in the area but mainly it is rich in ligaments, tendons and nerves. Therefore, it is classified as snayu marma. When aani marma is injured due to any external injury all the structures comprising the structure of aani marma are effected but due the main involvement of the snayu component, the symptoms developed are mainly due effect of injury to snayu component. According to Aghataj Parinaam, Ani Marma is Vaikalyakara Marma. Vaikalya means “deformity” and kar means “forming”. So any injury to this marma causes deformity. According to acharya Sushruta injury to aani marma causes saphya abhivrudhit (extensive swelling) and stabhdta (stiffness) of upper limb. [13] In the same way, any injury such as tearing of biceps tendon and triceps tendon, may lead to inflammation and stiffness of the arm with following deformities such as extension and flexion of the elbow and supination of the forearm. All these symptoms or deformity have very much close resemblance with the Ani Marma Viddha Lakshana.

**CONCLUSION**

There is no clear description of anatomical structures forming the marma points in our classical texts. Present era demands scientific description of each and every concept. After careful review of ayurved and modern literature and analyzing both of them by looking into the structures present at the area of aani marma mainly tendons of biceps and triceps are present at the corresponding area. Moreover, the symptoms of injury such as inflammation and stiffness in the area are same as described by acharya Sushruta in the context of injury to aani marma.
REFERENCES