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ANATOMICAL PERSPECTIVE OF SOME MARMA AND THEIR CLINICAL SIGNIFICANCE: A REVIEW

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ABSTRACT

Ayurveda the science of Indian medical system accredited to *Dhanvantari*. Anatomical knowledge in ancient India developed on the basis of practical experiments and continuous observation. The *Caraka Samhita* and *Susruta Samhita* are the important text of Ayurveda science. The *Susruta Samhita* concern about surgery and provides anatomical important information; *Susruta Samhita* encompasses many chapters regarding the human anatomy. The anatomical text of Ayurveda science also described a term *Marma* which means the joining point of *Mamsa*, *Sira*, *Snayu*, *Asthi* and *Sandhi*; these *Marma* are special points (*Sthana*) in human body and any injury on these *Marma* may leads disease, disability and fatal conditions. *Tri-Marma* i.e. *Shira*, *Hridayam* and *Basti* described by *Acharya Charaka* possess significant clinical importance. This article described anatomical perspective of some *Marma* with their clinical significance.

KEYWORDS

Marma, Gulpha Marma, Adhipati Marma, Indrabasti Marma and Urvi Marma.

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INTRODUCTION

Ayurveda the traditional science of Indian medical system not only involve medical practices on the basis of logical experimental reasoning but also encompasses holistic approach. As per the traditional science of Indian medical system the *prana* (life) encompasses *Sharir*, *Atma*, *Mana* and senses. The basic principles of Ayurveda belongs from the ancient literature *Samhita*; *Sarira Sthana* of the *Susruta Samhita* dedicated to the human anatomy it described human body as six main components such as; the four extremities (upper and lower), the middle

body and the head. Similarly the ancient science also described a term *Marma* which means *prana, Jiva, Marma* is one of the important concepts of *Sharirsthana*; as per *Dalhana* there are some susceptible points (*Marma*) in human body that any type of injury through these points may lead to serious condition. There are some anatomical features involved in *Marma* point such as; *Mansa, Sira, Snayu, Asthi* and *Sandhi*. *Marma Vigyana* is used for various purpose like; surgery, diagnosis and diseases treatment (Figure No.1). There are various types of *Marma* classified in Ayurveda text such as; *Snayu Marmam, Sira Marma* and *Sandhi Marma*, the classical example of various types of *Marma* are as follows:

Snayu Marma: *Kurch and Aani.*
Sira Marma: *Lohitaksh and Urvi.*
Sandhi Marma: *Janu.*

Anatomically the positioning and size of *Marma* also mentioned in literature i.e; *Janu Marma* is three *Angula* in dimension *Kurch Marma* is one *Paanitala* while *Urvi* and *Vitap* are one *Angula* and *Aani* and *Lohitaksh* are $\frac{1}{2}$ *Angula* in Dimension.

GULPHA MARMA

Gulpha Marma is *anguli pramana*. The *Gulpha Marma* may be used for *Siravedha, Agni karma* and for ankle joint. The *Gulpha Marma* resides in the *Gulpha* region where the *Pada* and *Jangha* meet together, injury on this region may leads symptoms like: *Ruja, khanjata* and *stabdha padata*. *Gulpha Marma* shows various correlated compositions such as:

Mamsa: Fibularis (peroneus) longus, fibularis brevis, superior fibular (peroneal) retinaculum

Sira: Perforating branch of Fibular (peroneal) Artery, Fibular nerve

Snayu: Lateral ligament of the ankle along with anterior talofibular ligament, a flat weak band calcaneofibular ligament and posterior talofibular ligament.

Asthi: Tibia, Lateral malleolus of Fibula and Talus.

Sandhi: Joint between Tibia, Fibula and Talus.

As per *Sushrta Gulpha* is *Sandhi Marma* associated significantly with the joint injury⁵.

SIRAVYADHA MARMAS

Siravyadha is one of the types of *Rakthamokshana* and *Marma sthanas* are suggested as anatomical point for specific conditions of *Siravyadhana*. Researchers investigated and reported anatomical and clinical consequence of *Siravyadha*; also described *Siras* for *Siravyadha* in particular diseases. There are different site of *Siravyadha* and *Marma Sthana* for various *Roga* like; *Vama Kurpara Sandhisthita Sira* means left side medial cubital vein or *Sira* present between left *Kanishtika* and *Anamika Angulas* for *Pleehodara*, two *Angula* below from *Indrabasti Marma* for *Apachi* (Lymphadenitis), four *Angula* above the *Kurpara Sandhi* for *Vishwachi* and *Dakshina Kurpara Sandhisthita Sira* means right sided medial cubital vein or *Sira* present between *Kanishtika* and *Anamika Angulis* (Right dorsal venous arch) for *Kasa* and *Shwasa*⁶.

ADHIPATI MARMA

Adhipati Marma is situated at top of skull. The superior saggital sinus is a place of *Adhipati marma*. Due to the abundance of veins it described as *Sandhi marma* which on skull is represented by *Avarta* form by hair in outer expression, it is correlated with sub arachnoid pressure on cerebral veins which may lead symptoms such as; *Murcha, Bhrum, Pralap*⁷.

INDRABASTI MARMA

Indrabasti marma is a *Mamsa marma* is located between elbow and wrist, towards the hand. *Indrabasti marma* is present 8 *angula* from elbow to wrist (*Prakoshta madhya prati*). *Indrabasti marma* is described as *mamsa marma* since middle of forearm pronator teres, brachioradialis, flexor carpi radialis and flexor digitorum superficialis muscles are situated at this region, ulnar artery along with its branches, radial artery and median nerve are also located in this area. Any injury which may result loss of the blood supply is more common at the forearm level in the upper extremity. Branches of ulnar artery, radial artery are found in the proximity of *Marma*, so injury on this region may lead significant blood loss and obstruction in blood supply⁸.

LOHITAKSHA MARMA

Sushruta described *Marma Sharira* in “*Pratyekamarmanirdesha Sharira*” and *Vagbhata* in *Marmavibhagam Shariram*. *Lohitaksha Marma* located in lower limb is *Vaikalyakar Marma* where femoral artery passes in femoral triangle two inches lateral to pubic symphysis. *Lohitaksha Marma* is located above *Urvi Marma* and below *Vankshana Sandhi*, it can be described as *Sira Marma*. *Lohitaksha Marma* situated beneath the great inguinal canal through femoral triangle. The basic structural component of this region is: skin, superficial fascia, fascia lata, femoral nerve, femoral artery and femoral vein. The femoral vein and artery moves through the femoral triangle with a separator line that divide to motor nerve the femoral vein in upper part medial to the femoral artery and at the top the association between artery and vein is antero-

posterior. The any shock to this *Marma* may result hemorrhage⁹.

URVI MARMA

Urvi Marma is *Vaikalyakara Marma* and related to the *Sira* thus described under *Sira Marma* with dimension of one *Angula*. Adductor magnus, rectus femoris, sartorius, vastus medialis, femoral artery and its branches, femoral vein along with tributaries, superficial inguinal lymph nodes, saphenous nerve, subsartorial plexus of nerves are located at the region of *Urvi Marma*, position of *Marma* is in adductor canal, no direct correlation regarding *Sandhi* and *Asthi*. The leading structural component of the *Urvi Marma* site is femoral vein with Adductor magnus, Sartorius and Vastus medialis etc.¹⁰.

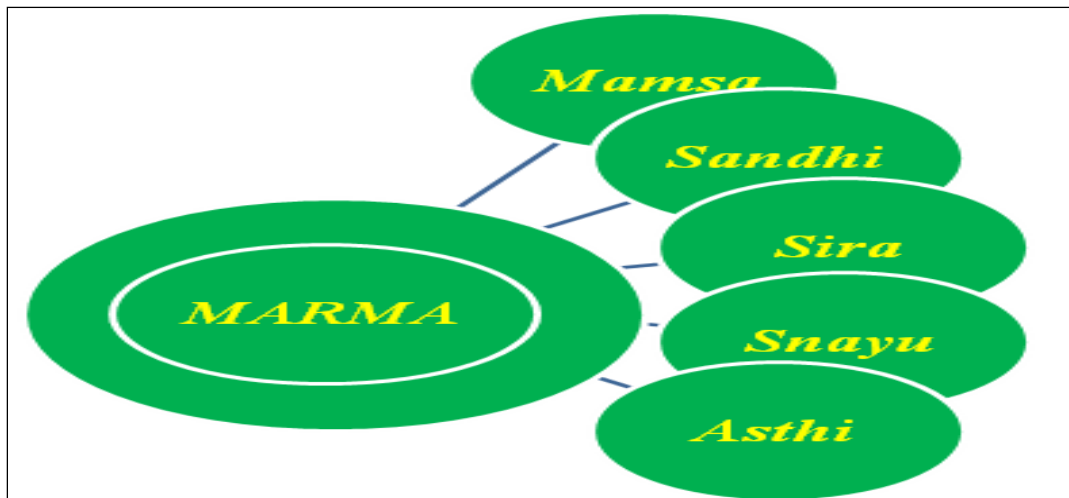


Figure No.1: Marma Positioning

CONCLUSION

Ayurveda emphasized on anatomical knowledge as part of diagnosis and treatment. The surgical interventions needed great consideration of anatomical perspective, any misconception regarding anatomical framework may leads failure of medical procedure. This article described various *Marma* points which need to be cover while injury or shock to prevent fatal conditions. Present article mention anatomical perspective of some *Marma* with their clinical significance to explore medical consideration of *Marma* points.

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CONFLICT OF INTEREST

We declare that we have no conflict of interest.

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