

CONCEPTUAL STUDY OF KSHIPRA MARMA

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ABSTRACT

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Ayurveda is India's traditional healing system. It is a profound system of mind-body medicine, natural living and *yogic* health. *Ayurveda*, which means 'the science of life', has become recognized today for its wonderful dietary, herbal, life-style and *yogic* therapies that help us live longer, happier, wiser and more in harmony with the greater universe of life and consciousness. The science of *Marma* or *Marma Vidya* is another extraordinary and dynamic *Ayurvedic* therapy that has tremendous value in health, disease, everyday living and in spiritual practice. *Marma* points have been unanimously accepted as the “*Prana*- seats of life or vital force” and it also consists of *Agni*, *Soma*,

Vayu, *Satva*, *Rajas*, *Tamas* and *Bhootatma*.^[1] *Marma* is defined as sites where there is accumulation of *Mamsa*, *Sira*, *Snayu*, *Asthi* and *Sandhi* and where *Prana* resides naturally.^[2] Every individual must have knowledge about these vital points of our body so that they prevent them from any type of injury. The main focus of this study will be on the *Kshipra marma* which is a *Kalantara Pranahara Marma* on the basis of traumatic effect. It is situated between the big toe and first toe in lower limb and in between thumb and index finger in upper limb. *Kshipra Marma* is located both in upper and lower limbs. Trauma to this *Marma* causes death due to convulsions. Understanding *Marma* is very important in clinical practice of *Ayurveda*. This review will give a complete summary of *Kshipra Marma* regarding its location, structural entity, modern anatomical correlation and applied anatomy.

KEYWORDS: *Marma*, *Kalantara pranahara Marma*, *Snayu*, *Kshipra*.

INTRODUCTION

The concept of *Marma* in the *Ayurveda* is pioneer in the science of traumatology, which has explored the vulnerable areas of human body. *Marma* has been described by *Acharya Sushruta* from the point of view related to injury whereas *Acharya Charak* has described only three *Marmas* which deal with the diseases related to them. The ancient scriptures have strictly directed that these *Marmas* play a very important role in surgical procedure by avoiding injury to the adjacent vital points and due care should be taken in this regard even while doing surgeries. *Acharya Sushruta* has described 107 vital points in our body.^[3] If these vital points are injured or traumatized, then it may lead to severe pain, disability, loss of function, loss of sensation or even death. *Acharya Sushruta* has given the importance of knowledge of *Marma* without which a surgeon cannot perform a skilful surgery.^[4] Hence it is rightly called as *Shalya Vishayardha*.^[5] *Marma* are the vital points where there is conglomeration of *Mamsa*, *Sira*, *Snayu*, *Asthi* and *Sandhi*. Here the *Prana* (element of life) resides naturally.^[6]

Description of *kshipra marma*

According to *Shabdakalpadrum*, *Kshipra* takes its root from the word '*kship*' and it has synonyms '*Sheeghra*' and '*Twarit*'.^[7] According to Monier Williams Sanskrit- English dictionary it is meant as to throw, cast, send, dispatch.^[8] It is explained as *Snayu Marma* according to structural entity.^[9] and *Kalantara pranahara marma* according to prognosis of injury.^[10] It is total four in number and located in both upper and lower extremities.^[11] Injury to this *Marma* causes death due to *Akshepaka* (convulsions).^[12]

Sr. No.	Name	Urdhwasakhagat <i>Kshipra Marma</i>	Adhosakhagat <i>Kshipra Marma</i>
1.	Number	2	2
2.	Structure	<i>Snayu Marma</i>	<i>Snayu Marma</i>
3.	Dimension	$\frac{1}{2}$ <i>Anguli</i>	$\frac{1}{2}$ <i>Anguli</i>
4.	Prognosis of injury	<i>Kalantara Pranahara Marma</i> . Both fiery and watery in degree of vulnerability. ^[13]	<i>Kalantara pranahara Marma</i> . Both fiery and watery in degree of vulnerability.
5.	Site	Situated in between the thumb and index finger, located bilaterally on the dorsal and palmar surfaces of the hand in the web formed by dorsal interosseus muscle between the first and second metacarpal bones.	Situated in between the big toe and first toe (web between the first distal phalangeal joint and the second medial phalangeal joints of the foot.)
6.	Anatomical	Radialisindicis artery,	Deep peroneal nerve branch to

	Structures	Princepspollicis artery (interval between the 1 st dorsal interosseus & adductor muscle), Deep branch of radial artery that proceeds to form deep palmar arch, recurrent branch of median nerve which supplies the thenar muscles, flexor pollicis longus. Three proper palmar digital nerves of the lateral branch of the median nerve which supply the skin of both sides of the thumb & radial side of index finger, first lumbrical, 1 st palmar interossei, Transverse and oblique head of adductor pollicis, Radial bursa, Superficial terminal branch of radial nerve & its dorsal digital branches. ^[14]	great toe, combined tendon of abductor hallucis and flexor hallucis brevis muscles, bifurcation of first common digital nerve, dorsal pedis artery, lumbricalis muscles, posterior tibial nerve, plantar arch and medial plantar artery, bifurcation of first dorsal metatarsal artery and metatarso-phalangeal joint. ^[15]
7.	Symptoms if injured	Loss of adduction and flexion of thumb and bleeding from the palmar arch. ^[16]	Injury may impair the functions of adduction and flexion of the great toe. Damage to the artery may cause bleeding, haematoma inside the plantar aponeurosis. ^[17]

MATERIALS AND METHODS

1. Literature regarding *Marma* from *Sushruta Samhita*, *Charak Samhita*, *Ashtang Sangraha*, *Dalhan Teeka* and *Ghanekar Teeka*.
2. Modern literature from B.D.C. Human Anatomy, Gray's Anatomy.
3. Review articles, journals etc.

DISCUSSION

Marmas are classified under five categories on the basis of prognosis of injury. They are *Sadyopranahara*, *Kalantara Pranahara*, *Vishalyaghna*, *Vaikalyakara* and *Rujakara*.^[18] According to *Acharya Sushruta*, *Kshipra marma* is the variety of *Snayu Marma* and location of *Kshipra Marma* is said to be between thumb and index finger. It is a *Snayu Marma*, because, there are 20 intrinsic muscles in our hand and *Acharya Sushruta* may have classified most of them as *Snayu*, due to their small in size which led to the classification of *Kshipra* as a *Snayu Marma*. Since thumb is the master finger, the first web space was given more importance compared to others.

In the upper limbs, flexor pollicis longus muscles receives blood supply from anterior interosseous artery, which is a branch of the common interosseous artery that arises from the ulnar artery. The first palmar interosseous muscle receives blood supply from the first metacarpal artery and first dorsal interosseous muscles receive blood supply from the first dorsal metacarpal artery, both of above arteries are the branch of radial artery. And further these arteries are the continuation of arch of aorta, which carries oxygenated blood from the heart and supply to upper extremities.

In the lower limbs, extensor hallucis brevis muscle receives blood supply from first dorsalis pedis artery which is the continuation of anterior tibial artery. Flexor hallucis brevis muscle receives blood supply from first metatarsal artery which is the continuation of medial plantar artery. Medial plantar artery is the branch of posterior tibial artery. Anterior and posterior tibial artery is the continuation of popliteal artery and which is a deeply placed continuation of the femoral artery. Femoral artery is the branch of external iliac artery which is the largest branch of the common iliac artery, and it transports oxygenated blood into the lower extremities.

Acharya Sushruta has also described *Kshipra Marma* as *Kalantara Pranahara* in nature. And sometimes, it can be *Sadyopranahara*. *Kshipra Marmabhighata* causes *Akshepaka* and *Marana*. The *Akshepaka* mentioned here is the *Vatavyadhi* as described by *Arundatta*.^[19] The severe blood loss in the injury of *Kshipra Marma* will lead to *Vata Prakopa*. Then the *Vayu* entering into *Dhamani* will cause severe spasm and convulsions.

According to modern science, tetanus is caused by *Clostridium tetani*. The incubation period of *Clostridium tetani* is between 4 -14 days which strikingly matches with the fact that the person injured, in the *Kalantara Pranhara Marma* will die within 15-30 days. Severe injury to the dorsal metacarpal artery or palmar arch may leads to the excess blood loss. Injury of this *Marma*, the death takes place.^[20]

CONCLUSION

As this *Marma* comes under the classification of *Kalantara Pranahara Marma*, the predominance of *Agni* and *Jala Mahabhuta* is present in this case where the *Agni* acts faster as a result the person may die suddenly (*Ashu*) and *Jala* acts slowly, so the person may die within a month of injury. Injury to *Kshipra Marma* leads to *Akshepaka* (convulsions) leading to *Marana* (death). Space in between root of the thumb and the index finger can be co-related

with *Kshipra Marma*. If there is an injury to the first dorsal metacarpal artery and median plantar artery, excessive blood loss occurs, there is a lack of oxygen. To compensate it, the patient moves the body with restlessness and breathes rapidly with great force and dies from convulsions at last. In *Akshepaka Roga*, the aggravated *Vata Dosha* permeates all *Dhamanis* leading to frequent & repeated convulsions and spasm of muscles. *Acharya Dalhana* has interpreted *Dhamani* as *Nadi* which possibly indicates the involvement of nervous system in it. *Dalhana* has also mentioned that in this *Akshepaka* whole body takes place.^[21] *Arundatta* has interpreted the word '*Aakshipty*' as '*Aakramati*' or attacking.^[22]

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