

## CLINICAL ASPECT OF TEMPORAL REGION WSR TO *SRUNGATAKA MARMA* AS DESCRIBED IN INDIAN SYSTEM OF MEDICINE

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### ABSTRACT

From the time immemorial, they were keen in unravelling the secrets of this most sophisticated and complicated machinery. *Ayurveda* with a broad approach had explained the human body considering its various aspects- metaphysical, philosophical, spiritual, anatomical and so on. A very unique aspect of *Sareerasthana* is the description of certain vital points of the body which are named as *Marma*. These are the complex anatomical sites, where a definite physiology rests and produce specific traumatic effects. The regional anatomy in *Ayurveda* is discussed under the heading *Marma*. The description incorporates applied aspects and surface markings. Even minor injuries to these

vital points become fatal when compared to major injuries at other sites. It is a humble attempt to substantiate the Clinical aspect of *Sringataka Marma* with reference to temporal region on the basis of various classical references.

**KEYWORDS:** *Marma*, *Srungtaka Marma*, Temporal region.

### INTRODUCTION

The head is most frequently injured part in the body due to RTA (road traffic accidents), Domestic violence, labours who work in constructive areas, falls, pedestrian injuries, gunshot wounds etc.<sup>[1]</sup> Injury or trauma to head results in fracture of the Skull when we the incidence the temporal region is frequently involved due to its resistance of weakness. Approximately 75% of these fractures are longitudinal and 25% are transverse.<sup>[2]</sup> A part from these as temporal is located in the base of skull which has multiple foramina due to which the fractures that involves temporal bone continue along skull base following points these are structurally weak.

As it is the weakest and vital part of the skull precise care to be taken before and after injury. In *Ayurveda* the vital points of body are explained in detail under specific heading called as *Marma* based on effect it is classified into *Sadyah Pranahara*, *Kalantara Pranahara*, *Vishalyaghna*, *Vaikalyakara*, *Rujakara*.<sup>[3]</sup> *Srungataka Marma* is a *Sadyah Pranahara Marma* which belongs to region of head and neck. Due to its importance it has to be studied structurally as well as clinically hence the clinical importance of *Srungataka Marma* on the basis of *Marma Vidha lakshana* is compared with temporal region.

## REVIEW

Human body, the miraculous gift of god has been the topic of interest to pioneers and seers of different fields. Out of the 107 *Marmas* explained, 37 are located in the head and neck region. *Srungataka* is one among these 37 *Marmas*.<sup>[4]</sup> It is described as the network of *Siras* providing nourishment to sense organs namely tongue, eyes, nose and ears. Prognostically it is a *Sadyapranahara Marma*, numerically quadrupled and metrically *Panithala*.<sup>[5]</sup>

The description of *Sringataka* is available in other contexts also. In the context of *Nasya*, it is explained that the medicine administered through the nasal passage first reaches the *Srungataka*, spreads to *Murdha*, *Kanta* etc. later to eliminate the *Doshas*. In the pathogenesis of *Kshavadhu*, *Sringataka* is mentioned by all *Acharyas*. It is explained that the aetiological factors of *Kshavadhu* irritates the *Marma Sringataka* located in the nose and results in *Kshavadhu*.<sup>[6]</sup> Nose is considered as the gateway to *Shiras*, which is the *Uthamanga*.<sup>[7]</sup> It is not only the entrance to *Shira*, but to whole body and mind. So the *Marma Sringataka* bears special importance. In the context of *Sandhi* and *Anjana* also *Sringataka Marma* is mentioned.

### Derivation of the word *Srungataka* as per classics

- It is meeting of 4 roads, centre or meeting point, and close connection.<sup>[8]</sup>
- Moving towards importance, highest peak, meeting of 4 roads.<sup>[9]</sup>
- The term *Srungataka* means *Chatushpada* - A place where 4 roads meet.<sup>[10]</sup>

### Symptoms on the injury to *Marma*

- Wherever irregular pulsations and pain are felt on pressure and trauma, those regions are called as *Marmas*.<sup>[11]</sup>
- The general symptom of *Marma* is pain and irregular pulsations on trauma or injury.<sup>[12]</sup>

- *Acharya* has not given any definition for *Marma*. He explains these points as places where the sense of pain will be felt more intensely when compared to other parts and the reason is attributed to the presence of “*Chethana*”.<sup>[13]</sup>
- When *Dhamani Marma* is injured, the blood which is frothy and warm flows out with a sound and the patient becomes unconscious. From the explanation of *Vagbhat Acharya* it is clear that the *Dhamani Marmas* are arteries itself.<sup>[14]</sup>

### Prognosis<sup>[15]</sup>

Both the *Acharyas* explain it as *Sadyapranahara*. It is explained that *Sadyapranahara Marma* causes death within one week. The reason for this is due to its *Panchabouthik* constitution which is *Agneya*. The *Agni Guna* due to its *Theekshnatwa* can kill a debilitated person quickly.

### Modern review<sup>[16]</sup>

- Temporal region: It is a region of the head which overlies the temporal fossa present on lateral aspect of skull. The floor of the temporal region is formed by the temporal fossa which is formed by frontal, parietal, squamous part of temporal and greater wing of sphenoid bone the meeting point of all these is called as Pterion.
- Contents of temporal region:
  1. Temporoparietal fascia
  2. Temporoparietal fat pad
  3. Temporal fascia
  4. Temporalis muscle
  5. Part of epicranial aponeurosis, subcutaneous muscles of auricle and orbicularis oculi.
  6. Superficial and deep temporal vessels.
  7. Auriculotemporal nerve and temporal branch of facial nerve.

### Infratemporal fossa

The temporal fossa communicates with the Infratemporal fossa beneath the zygomatic arch.

### Contents of Infratemporal fossa

1. Lateral and medial Pterygoid muscles.
2. Lower part of temporalis.
3. Maxillary artery and its branches.
4. Pterygoid venous plexus.

5. Mandibular nerve and its branches.
6. Chorda tympani nerve.
7. Otic ganglion.
8. The temporomandibular joint is also an anatomical content of the fossa.

## DISCUSSION

As there are regions in the body which are vulnerable to injury and which should be protected during surgical procedures, *Acharyas* recognized the need to explain them under a separate heading, the *Marma*. As per *Kha Chatushtaya Sangame Srungataka Marma* is a point of conglomeration of 4 structures these are frontal, parietal, squamous part of temporal and greater wing of sphenoid bone this point is called as Pterion. Clinical significance of Pterion which is related to temporal region, at this specific point the skull is very weak structurally due to union of several bones. There lies a anterior division of middle meningeal artery this signifies that structurally it is *Dhamani Marma*. Fracture of skull at this point leads to Extradural(Epidural) hemorrhage by which blood collects in between skull and dura matter this creates tension because of dense attachment of dura matter to skull by sutural ligaments the specific feature of this hemorrhage is lucid interval it is a state where the person will loose consciousness progressively this signifies the symptom When *Dhamani Marma* is injured, the blood which is frothy and warm flows out with a sound and the patient becomes unconscious.

The trauma to temporal region is extremely varied which ranges from a minor blow without any deficit in function to severe penetrating trauma involving the contents of temporal and Infratemporal fossa. The clinical presentations of this region include:

1. Partial or complete paralysis of facial nerve.
2. Conductive or sensory neural hearing loss.
3. Vertigo.
4. Otorrhagia.
5. Otorrhea.
6. Perforation of Tympanic membrane.
7. Cerebrospinal fluid otorrhea.

## CONCLUSION

1. *Srungataka Marma* is *Pterion*
2. Structurally it is a *Dhamani Marma*.

3. The consequence of injury to *Marma* is either deformity or death.

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