

## A SCIENTIFIC APPROACH TO NETRA MARMAS IN EYE

C Syam Chandran <sup>1</sup>

Adityan Prasannan <sup>2</sup>

<sup>1</sup> Asst professor, Department of Shalaky Tantra, Santhigiri Ayurveda Medical College, Palakkad, Kerala, India

<sup>2</sup> Housesurgeon, Santhigiri Ayurveda Medical College, Palakkad

### INTRODUCTION:

Marmas are conglomeration of mamsa, asthi, snayu and sandhi where prana is specially associated and trauma to this structure will result in irreversible change<sup>1</sup>. In modern viewpoint it can be correlated with that of vital points<sup>4</sup> and it refers to an area on the human body that may produce significant pain or other effects when manipulated in a specific manner. Furthermore marmas are 107 in number and vishlyaghna marma<sup>2</sup> comes under the broad category of classification of marmas on the basis of effect of marmaabhighata and they are 3 in number and specifically it is exclaimed that death occurs upon removing the shalya and the major concept behind coining of the name vishlyaghna marma<sup>2</sup> is that it is not lethal until the shalya is removed and it is a vayupradhana marma and after the trauma the shalya that is embedded at the vital points indeed protects the prana from escaping, but if it is pulled out intentionally before the suppuration and healing process it will lead to definitive death and the 3 vishlyaghna marmas are 2 Utkshepa marma<sup>3</sup> and 1 Sthapani marma<sup>3</sup>.

### AIMS AND OBJECTIVES:

1) To elucidate the anatomical correlations in relation with the respective Vishlyaghna marma<sup>2</sup>

2) Analysing the core concepts of Ayurveda and modern anatomy to strike a balance between the same.

### METHODS

Sthapani<sup>3</sup> and utkshepaka<sup>3</sup> form the vishlyaghna marma as a whole moving on to Sthapani marma the ayurvedic perspective involves it is an Urdhwajatrugata marma which refers to the marma associated with upper part of the body, Sira marma refers to the marmas in association with blood vessels, Ardhangula pramana is in connection with size of marma with reference to anguli pramana, Vyapuradhana marma indicates the excessive prevalence of of vayu dosha in the specified marma and is one in number and anatomically it can be exclaimed to be located between two eyebrows and is associated with following structures<sup>6</sup>:-

- Supra trochlear artery
- Supra orbital artery
- Supra trochlear nerve
- Frontal belly of occipito frontalis muscle
- Frontal bone
- Frontal nasal bone joint

- Glabella upto sagittal sinus

In This context acharya susruta tries to emphasise upon the concept and indeed the fact that without removing the shalya the person can survive if and only if it is allowed to stay and drops itself after paka and if catapulted with an anatomical approach to Sthapani marma<sup>3</sup> when a foreign body impacts any part of the body it tears the vessels and enters it . There will be no bleeding until it is forcibly removed and if it remains only tissue granulation chances will be there furthermore injuruy to 1/3 rd of Sagittal sinus that it can be treated by ligating the anterior 1/3 of superior sagittal sinus. Microsurgical repair is most needed which is difficult here hence any depressed bony fragments ,foreign objects involving dural sinuses should not be removed at all and for example if a gunshot occurs at sthapani the risk of brain injury exceeds its benefit of removal if the shalya is not easily accessible and in sthapani if shalya is removed forcefully it will lead to profuse bleeding and loss of vayu causing sosha of mamsa,vasa,majja and matulunga and finally death.

Utkshepa marma<sup>3</sup> with respect to the ayurvedic viewpoint is an urdhwajathrugatha marma which indicates its position in the upper part of human body. Snayu marma refers to the marma in connection with the ligaments of the body. Vayupradhana marma refers to the marma with excessive predominance of vata dosha which are 2 in number and are located above the shankha marma and the anatomical correlation in the specified region includes the hair margin which can be correlated to pterion, Which indeed is the name given to the region in temporal fossa where frontal<sup>5</sup>, parietal, temporal and sphenoid bone adjoin each other and it overlies the anterior division of middle meningeal artery and includes 3 cranial sutures- Sphenoparietal, coronal and squamous suture and as far traumatical condition in the specified area is concerned a severe blow to the side of the head may fracture thin bones forming pterion and this may cause injury to dural vessels or pial vessels hence shalya should not be removed moreover in the case of utkshepa<sup>3</sup> upon marma viddgha if the shalya is removed causes vinirgati of vayu causes sosha of majja, mamsa, raktha and mastulunga causing swasa and kasa and death, in modern context upon removal of foreign object haemorrhage occurs causing lack of blood supply to brain and meninges in shock with metabolic acidosis finally death.

## CONCLUSION

On the basis of discussions so far we indeed can judiciously conclude that sthapani can be correlated to glabella, superficial and deep fascia and associated arteries, veins and nerves as it is a sira marma and secondly utkshepa marma can be correlated to pterion and associated meninges and temporal fascia as it is a snayu marma, Thereby we can affirmatively say that Acharya Susruta is indeed the greatest anatomist to walk on earth moreover the applied aspect of marma along with knowledge of regional anatomy together can do wonders in managing critical situations and thus hereby we prove the credibility of marma even today though formulated 5000 years back.

## References

1. Priya vrat, S.H.A.R.M.A. Sharira sthana on description of individual marmas. In: Priya vrat, S.H.A.R.M.A (ed.) Susruta Samhitha (Vol 2) Nidana, Sarira and Cikitsasthana . India: Chaukhambha books; 2005. p. 187.

2. Priya vrat, S.H.A.R.M.A. Sharira sthana on description of individual marmas. In: Priya vrat, S.H.A.R.M.A (ed.) Susrutha Samhitha (Vol 2) Nidana, Sarira and Cikitsasthana . India: Chaukhambha books; 2005. p. 188.
3. Priya vrat, S.H.A.R.M.A. Sharira sthana on description of individual marmas. In: Priya vrat, S.H.A.R.M.A (ed.) Susrutha Samhitha (Vol 2) Nidana, Sarira and Cikitsasthana . India: Chaukhambha books; 2005. p. 195.
4. "Untitled Document". spa.exeter.ac.uk. Retrieved 2016-03-01.
5. Gerard j, T.O.R.T.O.R.A. Cranial bones-Frontal bone. In: Gerard j , T.O.R.T.O.R.A, Bryan, D.E.R.R.I.C.K.S.O.N (eds.) Anatomy & Physiology. India: Wiley India; 2015. p. 169-170.
6. Gerard j, T.O.R.T.O.R.A. Cranial bones-Frontal bone. In: Gerard j , T.O.R.T.O.R.A, Bryan, D.E.R.R.I.C.K.S.O.N (eds.) Anatomy & Physiology. India: Wiley India; 2015. p. 307.