



Review Article

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A REVIEW ON ANATOMICAL STRUCTURES PRESENT AT STHAPANI MARMA WITH SPECIAL REFERENCE TO AYURVEDIC & MODERN VIEW POINT

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ABSTRACT

Marma (vital point on body) points are described at some important parts of body this may result in death or abnormality of body parts. Among the different marma (vital point on body) explained in ayurvedic texts vishalyaghnamarma (a type of vital point on body) has a slight different working process. It works after the injuring weapon get removed from it & causes the death of a person. Our study has the aim to find out major anatomical structures present at sthapani marma (Vital point between eye brows). This study has objective to find out structural deficient in case of sthapani marma (vital point between eye brows). Another part of the study is to find out the relative cause of death after removal of weapon or foreign body from the sthapani marma (Vital point between eye brows). Literature study for sthapani marma (vital point between eye brows) was done from the ayurvedic text then their modern structures are studied from modern texts. Observations are made on the basis of textual comparison from the ayurvedic & modern text. It is concluded that most of the structure present at sthapani marma (vital point between eyebrows) are vascular in nature, so it contains blood vessels in the majority either in artery or venous form.

Keywords: Sthapani marma, Glabella, Supratrochlear artery, Sira marma, Aagnya chakra.

INTRODUCTION

In human body marma (vital point) are formed where the network of nerve, artery, vein, joint, bone & muscular structure is found. Sometimes marma (vital point) are also found where any two or three structures among above come together¹. Marma (vital point) knowledge gets developed from ancient war or batter where weapons like sword & arrow are used to defeat the enemy. These weapons cause injuries like stab wound, puncture wound & sometimes the weapons get fixed in the body. It causes the death of a person immediately because of blood loss or severe damage to vital organs in the body. Still, in some points of a body where these weapons get fixed but didn't cause death of a person till the weapon get removed from that point, these points in the body are called as vishalyaghna marma (a type of vital point). In this type of marma (vital point) death occurs only after removal of weapon or foreign material from them. Only three vishalyaghna marma (a type of vital point) are explained, they are two utkshep (vital point above the eye brow) & single sthapani (vital point between eye brows)². Both this marma (vital point) is found at the temporal & frontal parts of the head. Sthapani marma (vital point between eye brows) has quite more importance as it is the point where the vedik aagnya chakra (6th prime position explained in vedic text) is described³. That's why it is necessary to find out the anatomical structures present within the sthapani marma (vital point between eye brows).

Position of sthapani marma

Sthapani marma (vital point between eye brows) is located exact at the centre of the forehead in between two eye brow & above the nasal bridge⁴.

Type of sthapani marma

On the basis of structure sthapani marma (vital point between eye brows) is sira marma in nature. From the basis of injury occurred at this marma (vital point) it is vishalyaghna marma (a type of vital point).⁵

Pramana of sthapani

The dimension of sthapani marma (vital point between eye brow) is $1/2$ angula (ancient measurement unit)⁶. that's nearly 1.4 cm area in between two eye brow.

Effect on injury

As vishalyaghna marma (a type of vital point) it causes death after removal or after fall down of foreign material or weapon. It is predominantly sira marma (vascular vital point) in nature, so an injury to surrounding blood vessels is common. Deep injury causes severe damage to brain.

Structures at sthapani marma

As sthapani marma (vital point between eye brows) has dimension nearly 1.4cm it is necessary to find out the structures within this dimension in between two eye brows. From modern aspect this point is known as glabella part of the frontal bone. Inferiorly glabella resides on root of nose. At birth here the two half of frontal bone comes together & form medial frontal eminence. Muscles present at this point are frontalis & procerus⁷. Anterior to this there is presence of supratrochlear artery, supratrochlear vein & supratrochlear nerve⁸. Supra

trochlear artery lies slightly deep within this area & then it runs upwards by giving the subcutaneous branches to the skin of the forehead. It also supplies to frontal bone.

Frontal air sinus is situated behind the glabella within the frontal bone. Frontal air sinus opens in the middle meatus⁹. Posterior to the glabellar part of frontal bone lays the frontal lobe of the brain. In between the frontal bone & brain, there is presence of meninges surrounding the brain, it contains cerebrospinal fluid. Cerebrospinal fluid acts as a shock absorber for external injury. When any external trauma occurs the part of brain is protected by meningeal cerebrospinal fluid. Again vertical groove present behind the glabella & on posterior surface of frontal bone is called as sagittal sulcus. This sagittal sulcus lodges the superior sagittal sinus.¹⁰ this sinus drains to jugular vein.

Supra trochlear artery is the branch from ophthalmic artery, also it anastomosis superiorly with supra orbital artery. Supra orbital

vein receives blood from fronto parietal area of scalp & drain into the facial veins & ultimately to jugular vein. Thrombosis of sagittal sinus causes severe damage of brain parenchyma tissue; sometimes it also causes cerebral oedema & formation of hematomas. As supra trochlear vein drain to veins at root of nose angular vein & supra ophthalmic vein therefore dermal fillers at this site are sometimes unsafe as they may cause blindness.

Each marma (vital point on body) comprises of muscle, vessels, nerves, joints & bones but sometimes any of them is absent or present in little amount. In case of vishalyaghna marma (type of vital point on body) only three important anatomical structure are expected but other structures are also present but in little amount. Study of sthapani marma (vital point between eye brows) from ayurvedic text & its modern structure are studied out & tabulated below.

Table 1: Structure present at Sthapani marma (vital point between eye brows).

STHAPANI MARMA (vital point between eye brow)	STRUCTURES PRESENT
Mamsa (muscle)	Procerous, frontalis muscle.
Sira (vessels & nerves)	Supratrochlear artery, vein & nerve, superior sagittal sinus.
Asthi (bone)	Glabella part of frontal bone.

Vishalyaghna marma (type of vital point on body) are found to have only three important structures in major amount which make this marma (vital point). From the results also it is observed that muscle, vessels, & bone these three structures are found in major quantity. Snayu (tendon) & sandhi (joint) component are found very less amount. By observing the glabellar space there are no large tendons found at this place. Also, the blood vessels & nerve runs nearly parallel to one another & crosses each other in small amount so, therefore, joint are also found in small amount. The main structure found are mamsa (muscle), sira (blood vessels & nerve), & asthi (bone).

DISCUSSION

From the anatomical point of view sthapani (vital point between eye brows) is siramarma (vascular vital point) in nature, that's why maximum structures at that point should be vascular in nature. Supra trochlear artery, vein & superior sagittal sinus are the three major vasculature found at sthapani marma (vital point between eye brow). Of them, superior sagittal sinus thrombosis is major cause for cerebral edema & cerebral hematoma. Also, the infection of supra trochlear artery may cause blindness as it has origin from ophthalmic artery.

Sthapani marma (vital point between eye brows) is explained as vayavia (air element predominant) in nature that means vayu (air element) get vitiated at this point. Above mentioned three vasculatures are ultimately connected with heart which is the main place of pranavayu (type of air element responsible for life). Ultimately pranavayu (type of air element responsible for life) gets vitiated as this is the main functional vayu (air element) in living body results in death of a person. Removal of weapon from sthapani marma (vital point between eye brows) also causes same phenomenon & vitiate prana (type of air element responsible for life) causing death of a person. Also vitally most important part brain is situated behind the sthapani marma (vital point between eye brows) any weapon penetrating deep to brain also damages brain tissue & meninges causing death or dementia.

Agnychakra (6th prime position explained in vedic text) is also present at sthapani marma (vital point between eye brows). It is

also vayu (air element) predominant in nature which also specifies vayu (air element) predominance of sthapani marma (vital point between eye brows). Agnyachakra (6th prime position explained in vedic text) makes control over eyesight, smell & hearing. It also represents the pituitary gland in brain it is master gland to control all important function of body. In case of sthapani marma (vital point between eye brows) structure found in descending order are vessels, nerve, muscle and bone.

CONCLUSION

Sthapani marma (vital point between eye brows) is composed of Supra trochlear artery, supra trochlear vein, supra trochlear nerve, superior sagittal sinus, Procerus muscle, Frontalis muscle and Glabella part of frontal bone. But Sthapani marma (vital point between eye brows) is devoid of snayu (tendon) and sandhi (joint) component.

REFERENCES

1. Acharya Sushruta. Sushruta samhita, Vol.2, Acharya Priyavat Sharma. Varanasi. Chaukhamba Surbharati Prakashan, reprint on 2010, sharirasthan, chapter 6th. p.90.
2. Acharya Sushruta. Sushruta samhita, Vol. 2, Acharya Priyavat Sharma. Varanasi. Chaukhamba Surbharati Prakashan, reprint on 2010, sharirasthan, chapter 6th. p. 89.
3. Shripad mahadev vaidya. Shachakra darshan va bhedan. Mumbai. Tukaram book depot, jun 2009. p.15.
4. Acharya Sushruta. Sushrut samhita, Vol.2, Acharya Priyavat Sharma. Varanasi, Chaukhamba Surbharati Prakashan, reprint on 2010, chapter 6th. p. 97.
5. Acharya Sushruta. Sushrut samhita, Vol.2, Acharya Priyavat Sharma, Varanasi, Chaukhamba Surbharati Prakashan, reprint on 2010, chapter 6th. p.88.
6. Acharya Sushruta. Sushrut samhita, Vol.2, Acharya Priyavat Sharma, Varanasi, Chaukhamba Surbharati Prakashan, reprint 2010. chapter 6th. p.98.
7. B.D.Chourasia. Human Anatomy, Vol-3, New Delhi, C.B.S.Publishers & Distributor, 4th Edition 2004, reprint 2008, chapter 1st. p.8.

8. B.D. Chourasia. Human Anatomy, Vol-3, New Delhi, C.B.S.Publishers & Distributor, 4th Edition 2004, reprint 2008, chapter2nd, p.48-49.
9. K.B.Bhargava. S.K.Bhargava, T.M.Shah, E.N.T. Diseases, 9th edition, Mumbai, Usha Publication, sept-2011, p.128.
10. B.D. Chourasia. Human Anatomy, Vol-3, New Delhi, C.B.S.Publishers & Distributor, 4th Edition 2004, reprint 2008, chapter6th. p.95.

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