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Comparative analysis of Marma Vastu and Sira Marma Vidha Laxanas in The Context of Stroke Syndrome

Review Article

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Abstract

Marma shareera concepts were comprehensively discussed in Sharera Sthana of SushrutaSamhita, Marma locations; their types as well as the categorization of their fatalities are very much relevant till today. Here an effort is made to establish a relative hypothesis in vascularpathologies. A detail description is made on anatomical tissues or marma vastu especially on siraand dhamani which are involved in the marma injuries and also can be assessed by either in Sadhopranahara and vaikalykar marma viddha laxanas with the contemporary details of Brain stroke syndrome. The Brain stroke or Stroke syndrome is when blood flow to the brain isblocked or there is sudden bleeding in the brain. There are two types of strokes. A stroke that occurs because of blood flow to the brain is blocked called an ischemic stroke. Hemorrhagicstroke is due to bleeding into the brain by the rupture of a blood vessel. Hemorrhagic stroke maybe further subdivided into intracerebral hemorrhage (ICH) and subarachnoid hemorrhage (SAH).ICH is bleeding into the brain parenchyma, and SAH is bleeding into the subarachnoid spacemore specifically, nontraumatic (spontaneous) ICH.The brain cannot get oxygen and nutrients from the blood. Without oxygen and nutrients, brain cells begin to die within minutes. Theleaked blood results in pressure on brain cells, damaging them. The burden of stroke isincreasing in India; stroke is now the fourth leading cause of death and the fifth leading cause ofdisability. Research suggests that the incidence of stroke in India ranges between 105 and152/100,000 people per year. So, there is a need of understanding such disabilities by the meansof our concepts and try to avoid these by following certain regimes and activities which areexplained in our classics.

Keywords: *Marma shareera, Sira marma,* Brain stroke syndrome, *Madhyama Roga marga*.

Introduction

It is clear from Sushruta's explanation of the concept of marma viddha or marma injuries that the modern STROKE syndrome can be comprehended. Sushruta emphasized the fundamental bodily tissues and their physiological roles within the framework of Marma Shareera. The type of marma vastu and the type of fatality were used to determine the anatomical prevalence of these disabilities caused by marmaaghata and their prognosis. The tissue-level understanding of sira marma, or marma vastu, is discussed in this article along with some details on the characteristics of doshabhighata that have a lethal effect on marma locations.

Stroke is the leading cause of disability worldwide and the second leading cause of death. The Global Stroke Factsheet released in 2022 reveals that lifetime risk of developing a stroke has increased by 50% over the last 17 years and now 1 in 4 people is estimated to have a stroke in their lifetime. Stroke is a clinically defined syndrome of acute, focal neurological deficit attributed to vascular injury (infarction, hemorrhage) of the central nervous system. Stroke is the second leading cause of death and disability worldwide. Stroke is not a single disease but can be caused by a wide range of risk factors, disease processes and mechanisms.

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Definition of Sira:

ध्मानाद्धमन्यः स्रवणात् स्रोतांसि सरणात्सिराः | (1)

The term "saran function" also refers to nerve impulses or action potentials. It is important to understand that siras are not limited to the venous structures or veins that are most frequently compared.

Functions of Sira -

क्रियाणामप्रतीघातममोहं बुद्धिकर्मणाम् |
करोत्यन्यान् गुणांश्चापि स्वाः सिराः पवनश्चरन् | |
यदा तु कुपितो वायुः स्वाः सिराः प्रतिपद्यते |
तदाऽस्य विविधा रोगा जायन्ते वातसम्भवाः | | (2)

Vata, when flowing in its own siras, performs its duties without hindrance, enabling the mind to function correctly and preventing mental deviance.

चतुर्विधा यास्तु सिराः शरीरे प्रायेण ता मर्मसु सन्निविष्टाः | स्नाय्वस्थिमांसानि तथैव सन्धीन् सन्तर्प्य देहं प्रतियापयन्ति | (3)

The four types of siras found in the body are plac ed in the marmasthaan or near to the marma point, and they nourish the the structures like snaayu, mamsa, asthi and sandhi

Important Sira Marma located at the region of shiras

नीलधमनीमातृकाशृङ्गाटकापाङ्गस्थपनीफण...सिरामर्माणि || (4)

Neela,manya,matruka etc are grouped under sira marma.

References for Shiras:

प्राणाः प्राणभृतां यत्र श्रिताः सर्वेन्द्रियाणि च|

यदुत्तमाङ्गमाङ्गानां शिरस्तदभिधीयते (5)

Since the head is the part of the body that houses a living being's vital centers and all of its senses (indriya), it is the most important organ. Among all the other organs of the body, it is essential (uttama).

शिरसि इन्द्रियाणि इन्द्रियप्राणवहानि च स्रोतांसि सूर्यमिव गभस्तयः संश्रितानि (6)

According to Charaka, the prānavāhi srotāmsi of indriya are located in the head and are linked to the body in the same way that the sun is linked to its rays. Based on these observations, it can be inferred that the indriya-buddhi are also located in the head, as the head has been mentioned as the physical location of all indriya. The essential component of a sense that determines the ultimate understanding of the perceived object is called indriya [buddhi]. Therefore, the indriya buddhi is represented by logical centers located in the brain's cortex region.

The sypmtamatologies of Shiras related injuries:

शिरस्यभिहते

मन्यास्तम्भार्दितचक्षुर्विभ्रममोहोद्वेष्टनचेष्टानाशकासश्वासहनुग्रहमूकगद्गद त्वाक्षिनिमीलन (7)-

Injury to the shiras leads to manyastambha, ardita, chakshuvibhrama, udveshtana, cheshtanasha, kasa, shwasa, hanugraha, muka, gadgada, akshinimilana, gandaspandana, jrambhana, lalasrava, svarahani, vadana jihmatva etc

Pathophysiology of Brain Stroke

The brain, which is the main organ affected by stroke, is metabolically active and needs about 50ml/ 100g/min blood flow with an oxygen metabolic rate of 3.5cc/100g/min. If the blood flow drops below 10ml/ 100g/min, brain cell functions are severely affected, while neurons are unable to survive long at levels below 5ml/100g/min. In ischaemic stroke, disruption of blood flows to the brain for a few minutes' causes hypoxia and hypoglycemia, which leads to infarction of brain tissues. In hemorrhagic stroke, the haematoma causes compression of tissue resulting in tissue injury. The brain's regulatory mechanism attempts to maintain equilibrium by increasing blood pressure but the increased intracranial pressure forces out cerebrospinal fluid causing damage to circulation.

Vasculature of Brain

The paired internal carotid and vertebral arteries supply blood to the brain. Each internal carotid artery bifurcates into the anterior and middle cerebral arteries which supply the anterior cerebrum ('anterior circulation'). The vertebral arteries join to form the basilar artery (supplying the brainstem, cerebellum and pons) which bifurcates into the posterior cerebral arteries which supply the posterior cerebrum

Cerebral infarction

Cerebral infarction is usually due to atherothromboembolism. The source of embolism can be the heart, particularly when there is AF, or the rupture of large artery, atherosclerosis and subsequent thromboembolism from carotid arteries, vertebral arteries and aortic arch. Intracranial atheroma can lead to in situ thrombosis. Occlusion of the small perforating Occlusion of the small perforating lenticulostriate arteries in patients with sporadic or genetic small vessels diseases leads to 'lacunar' infarctions.

Cerebral small vessel disease (8)

Also known as cerebral microangiopathy, is an umbrella term for lesions in the brain attributed to pathology of small arteries, arterioles, capillaries, venules, or small veins. It is the most common cause of vascular dementia/cognitive impairment and is a major cause of ischemic and hemorrhagic strokes.

Non-traumatic Brain Injury

Refers to damage to the brain at the cellular level in the brain which is not hereditary, congenital, degenerative, or induced by birth trauma. Non-traumatic brain injury (also commonly referred to as an acquired brain injury or ABI) causes damage to the brain by internal factors, such as a lack of oxygen, exposure to toxins, or pressure from a tumor. Non-traumatic brain injuries can still result in psychological trauma.

Stroke

A stroke occurs when clots, plaque, or other particles block the blood supply to part of the brain, or when a blood vessel in the brain bursts. In either case, parts of the brain become damaged or die.

Lack of oxygen to the brain

Any event that causes oxygen to be cut off from the brain can cause a non-traumatic brain injury. When the brain is cut off from oxygen, it will result in a hypoxic or anoxic brain injury. This type of brain injury has its own set of symptoms and effects.

Brain aneurysm

A brain aneurysm occurs when a weakened blood vessel in the brain expands to the point that it can burst. Aneurysms can cause a brain injury whether the expanded blood vessel bursts or not. When the vessel

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expands, it can put pressure on areas of the brain that can cause an injury.

Infectious disease that affects the brain

Certain diseases like meningitis can attack the brain and cause health complications, including acquired brain injury

Symptoms of Brain Damage (9)

There are numerous symptoms of brain damage, whether traumatic or acquired. They fall into four major categories: Cognitive, Perceptual, Physical, Behavioral/ emotional

Cognitive symptoms of brain damage	**Shirogat / Sira marma Vidha lakshanas**
Difficulty processing information Difficulty in expressing thoughts Difficulty understanding others Shortened attention span Inability to understand abstract concepts Impaired decision-making ability Memory loss	मोह , उद्वेष्टन चेष्टानाष गद्गदता अक्षिन्मिलन लासस्राव स्वरहानि,

Interpretation

These vessels cause tissue damage, which leads to a variety of disorders affecting both the brain's structure and functions. In a similar fashion the vessels the siras—and particularly the siramarma structures also lead to the same clinical entities. Another point about the Doshabhighata concept that our Acharyas clarify is about the damage to these vessels, which are not only results in traumatic injuries but also manifests as obstructions in the vessel wall that are comparable to atherothromboembolism or thromboembolism.

Conclusion

1] शरीरं मन्दरुक्शोफं शुष्यति स्पन्दते तथा|सुप्तास्तन्व्यो महत्यो वा सिरा वाते सिरागते| (10) - Here a clear explanation is provided: when vitiated Vayu in sira gives rise to symptoms like *sirashoonyata, siratanutva, or siramahatva*, and it is evident that Vata is the primary cause for these symptoms, which are indicative of a kind of tissue and vascular injury called Doshabhighata.

2] मर्माभिघातस्तु न कश्चिदस्ति योऽल्पात्ययो वाऽपि निरत्ययो वा | प्रायेण मर्मस्वभिताडितास्तु वैकल्यमृच्छन्त्यथवा म्रियन्ते (11) – Injuries resulting from these marma locations undoubtedly cause tissue death or death of an individual even if they might not show any mild to severe symptoms.

3] मर्माण्यधिष्ठाय हि ये विकारा मूर्च्छन्ति काये विविधा नराणाम् | प्रायेण ते कृच्छ्रतमा भवन्ति नरस्य यत्नैरपि साध्यमानाः (12)- Treatment modalities may not yield adequate results for disorders or lesions affecting the marma site.

4] Concept of Doshabhighat in the Madhyama Roga marga and Marma patho physiology

त्रयो रोगमार्गा इति- शाखा, मर्मास्थिसन्धयः, कोष्ठश्च| मर्माणि पुनर्बस्तिहृदयमूर्धादीनि, अस्थिसन्धयोऽस्थिसंयोगास्तत्रोपनिबद्धाश्च स्नायुकण्डराः स मध्यमो रोगमार्गः;
पक्षवधग्रहापतानकार्दितशोषराजयक्ष्मास्थिसन्धिशूलगुदभ्रंशादयः शिरोहृद्बस्तिरोगादयश्च (13)

The basis of Roga Marga is Gati of Doshas. The specific and beneficial bond that the Doshas have with the Dhatus and organs is known as doshagati. The specific association in the pathological course is referred to as "rogamagga". Rogamarga is therefore the result and Doshagati is the cause in this stage of the sickness. Beyond prognosis, rogamagarga is important in the therapeutic domain. Furthermore, these three margas rely on one another for sustenance and the nourishment of these three margas is mutually dependent. So the Diseases of Madhyama rogamarga will have grave complications, and exhibit a large quantity of resistance. If the derailment of metabolic process, the complications surpass the resistance, and the grave and permanent structural or functional abnormality of the structures will occur. The reason Acharyas mentioned the kruchrasadhyata of Madhyama rogamarga is because its organs are always enclosed by various types of anatomical and physiological entities which makes it difficult to portray and not easy to access.

So, stroke entities can be compared to the concept of sira marma viddha laxanas, particularly vascular pathologies, and all nontraumatic brain pathologies can be considered as dosha abhighataja variety diseases and these are categorized under of madhyama rogamarga.

References

1. Agnivesha. Charaka Samhita. Sutrasthana Shloka no 12. Rajeshwar Dutt Shastri et al, Editors. Varanasi: Choukhambha Bharati Academy; Reprinted, 2005; 587.
2. Susruta. Yadavji Trikamji Acharya, editor Susruta Samhita ed Varanasi: Chaukhambha Orientalia; on Sushrutha Samhitha Sharira Sthana Ch. 7 Shloka no8 & 9 ; 2002; p-374
3. Susruta. Yadavji Trikamji Acharya, editor Susruta Varanasi: Chaukhambha Orientalia; Sushrutha Samhitha Sharira Sthana Ch. 6 Shloka no 18 ; 2002; p-374
4. Susruta. Yadavji Trikamji Acharya, editor Susruta Samhita with Nibandha Sangraha of Dalhanacharya ed Varanasi: Chaukhambha Orientalia; Sushrutha Samhitha Sharira Sthana Ch. 6 Shloka no 7 ; 2002; p-370
5. Agnivesha. Charaka Samhita. Sutrasthana Chapter 17 Shloka no 12. Rajeshwar Dutt Shastri et al, Editors. Varanasi: Choukhambha Bharati Academy; Reprinted, 2005; 587
6. Agnivesha. Charaka Samhita. Siddistana chapter 9 Shloka no 5 . Rajeshwar Dutt Shastri et al, Editors.

Varanasi: Choukhambha Bharati Academy; Reprinted, 2005; 682.
7. Agnivesha. Charaka Samhita. Siddistana chapter 9 Shloka no 6. Rajeshwar Dutt Shastri et al, Editors. Varanasi: Choukhambha Bharati Academy; Reprinted, 2005; 683.
8. https://radiopaedia.org/articles/cerebral-small-vessel-disease
9. https://www.webmd.com/
10. Agnivesha. Charaka Samhita. Chikitsa sthana chapter 28 Shloka no 36. Rajeshwar Dutt Shastri et al, Editors. Varanasi: Choukhambha Bharati Academy; Reprinted, 2005; 682.
11. Susruta. Yadavji Trikamji Acharya, editor Susruta Samhita with Nibandha Sangraha of Dalhanacharya ed Varanasi: Chaukhambha Orientalia; Sushrutha Samhitha Sharira Sthana Ch. 6 Shloka no 42 ; 2002; p-385
12. Susruta. Yadavji Trikamji Acharya, editor Susruta Samhita with Nibandha Sangraha of Dalhanacharya ed Varanasi: Chaukhambha Orientalia; Sushrutha Samhitha Sharira Sthana Ch. 6 Shloka no 43; 2002; p-385
13. Agnivesha. Charaka Samhita. Sutrasthana chapter 11 Shloka no 48 . Rajeshwar Dutt Shastri et al, Editors. Varanasi: Choukhambha Bharati Academy; Reprinted, 2005; 683.

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