

# A CONCEPTUAL STUDY OF *PADADHA* IN RELATION TO *SUSHRUTOKTA SIRAVEDHA*

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## Abstract

*Acharya Sushruta* has clearly outlined specific sites for *Siravyadha* in various conditions, there is limited information in the texts regarding the underlying anatomical structures of these sites, particularly in relation to *Padadaha*. This study aims to bridge that gap by interpreting the *Vedhya Sira* (target veins for bloodletting) in the lower extremities and correlating them with modern anatomical structures. The objective is to provide clarity on the *Vedhya Sira* in the context of *Padadaha* by critically reviewing ancient Ayurvedic texts and comparing them with contemporary scientific knowledge. This approach will help integrate traditional Ayurvedic concepts with modern anatomical understanding, offering better insight into the treatment of *Padadaha*.

**Keywords:** *Sira, Vedhya Sira, Siravedhan, Padadaha*

## Introduction:

In Ayurveda, the human body is understood through the lens of a complex network of channels (*Srotas*), vessels (*Sira*), and pathways that govern physiological functions. Among these, the concept of *Vedhya Sira* holds particular importance for its role in therapeutic interventions, especially in procedures like *Siravedhana* (venous puncture or bloodletting). *Adhosakhagata Vedhya Sira* refers to the essential vessels located in the lower limbs (*Adhosakha*).

The word *Sira* mostly refers to the blood vessels which flow the blood towards the heart. The term *Sira* stands for channels through which substance or physical flow, in general, this term stands for blood vessels even though *Acharya Sushruta* has also used it in the sense of nerves ie. *Vatavaha Sira*.

According to *Acharya Charak* in *Charak Sutra Sthan Adhyay 30*. *Sira* means the channel or vessels in which liquid flows (सरणात् सिराः)<sup>(1)</sup>. *Acharya Charak* described it from the root meaning of *Sira*. The word *Sira* is derived from the root 'Sru' to go or move slowly. Here means the *slow* flow of liquid (it may be blood, or lymph) from one part to another. According to *Acharya Sushruta* *Sira* and *Dhamani* are the channels other than *Srotas*,

As per the classics, the total *Sira* is 700 in number. These are classified based on *Dosha*, *Adhishthana*, *Vedhya*, and *Avedhya* in *Sushrut Samhita*, where 98 *Sira* are *Avedhya Sira* which are strictly prohibited for puncturing. So we can conclude that the remaining *Sira* which are superficial can be used for bloodletting<sup>(2)</sup>. *Acharya Sushruta* and *Vaghabhatta* are mentioned an exact number of *Avedhya Sira* with their name and sites but the specific name and sites of *Vedhya Sira* are not mentioned. While explaining, *Siravyadha* only sites of *Siravedha* in different *Vyadhi* are mentioned<sup>(3)</sup>.

**Aims:**

A conceptual study of *Padadaha* in relation to Sushrutokta *Siravedha*

**Objectives:**

- To review the literature with respect to *Padadaha* and *Siravedhan* from Ayurvedic texts.
- To highlight the location mentioned by *Acharya Sushruta* for *Siravedhan Padadaha*.
- To study the importance of *Siravedhan* in *Padadaha*.

**Materials and Methods:**

For this study, the Literary material related to *Sira* has been collected from Different *Samhita* such as *Charak Samhita*, *Sushruta Samhita*, research articles and Modern Anatomy books like Chaurasia General Anatomy, Gray's Anatomy, Principles of Anatomy and Physiology, etc have been studied.

**Literature Review:**

As per the *Vedas*, the *Sira* is defined as '*Hira*' channel that carries blood towards the heart[4]. *Siras* are the blood vessels possessing *Sarana Karma*.

ध्मानात् धमन्यः स्रवणात् स्रोतांसि सरणात् सिराः ।। (च०सू०३०/१२)

Pulsating vessels are called *Dhamanis* (arteries), those with a flow are *Srotas* (channels) and flowing swiftly are the *Siras* (veins)<sup>(5)</sup>.

According to *Acharya Chakrapanidatta*, he explains that in "*Dhaman Karma*," fluids such as *Rasa* (nutrients) are forcefully propelled into the porous blood vessels at intervals, as seen in arteries. In "*Sravan Karma*," there is a pulsation of nourishing substances like *Rasa* in the finest capillaries. In "*Saran Karma*," there is a gentle movement of fluids like *Rasa* from one place to another, which is generally observed in veins. Thus, based on the above explanations, "*Dhamani*" corresponds to arteries, "*Srotas*" corresponds to capillaries, and "*Sira*" corresponds to veins<sup>(6)</sup>.

**Definition of Sira**

व्यापुवन्त्यभितोदेहं नाभितः प्रसृताः सिराः ।  
प्रतानाः पद्मिनिकन्दाद्विसादीनां यथाजलम् ॥ (सु०शा०७/२६)

Discussing the *Siras* in *Sharira Sthan Acharya Sushruta* marks the resemblance of *Siras* with that of water spreading from the rhizome of Lotus plant to its stalk. Similarly *Siras* originating from the umbilicus spread through the entire body<sup>(7)</sup>.

**Sira Utpatti**

सिराणां तु मृदुःपाकः स्नायूनां च ततः खरः ॥ (सु०शा०४/२९)

From the unctuous portion of Medas, both *Sira* and *Snayu* are formed. *Sira* arises from *Mrudupak* and *Snayu* from *Kharapak*<sup>(8)</sup>.

*Sira* is formed as a by-product of *Rakta Dhatu* and nourished from it<sup>(9)</sup>.

**Sira Sankhya**

According to *Acharya Sushruta*, there are seven hundred *Siras*<sup>(10)</sup> in a body which he further classified on the basis of *Doshas*. *Acharya Sushruta* also enumerated *Vedhya* (can be punctured) and *Avedhya* (cannot be

punctured) *Siras* to improve surgical knowledge. Out of these 700 *Siras*, 98 are *Avedhya Siras*. While *Avedhya Siras* should be avoided during any surgical procedure, the *Vedhya Siras* have their own significance.

### Classification of *Sira*:

*Siras* are classified into 4 types based on *Doshas*<sup>(11)</sup>

Type of <i>Sira</i>	Colour	Character	Modern Correlation <sup>10</sup>
<i>Vatavaha Sira</i>	<i>Aruna Varna</i> (crimson red)	Filled with <i>Vayu</i>	Arteries Nerves
<i>Pittavaha Sira</i>	<i>Neela Varna</i> (blue)	Warm touch	Veins
<i>Kaphavaha Sira</i>	<i>Goura Varna</i> (white)	Cold to touch and steady	Lymphatics
<i>Raktavaha Sira</i>	<i>Rohini Varna</i> (red)	Neither too hot nor too cold	Capillaries

### Review of *Padadaha*:

#### In Ayurveda:

According to *Vachaspatya* the word *Padadaha* mean Burning of foot.

In *Sushruta Samhita* *Padadaha* is not explained separately but explained in *Vatavyadhin Adhyaya* in *Sushruta Nidan Sthan* in *Prathamadhyaya*.

According to *Acharya Sushruta Padadaha* is:

पादयोः कुरुते दाहं पित्तासृक्सहितोऽनिलः।  
विशेषतश्चङ्क्रमणात्पाददाहं तमादिशेत्॥  
(सु.नि. 1/80)

When *Vata* is mixed with *Pitta* and *Rakta* which causes burning sensation on foot while walking or moving as compared to the relaxing position<sup>(12)</sup>.

*Padadaha* is the only symptom described in various *Samhita* of the disease *Padadaha*. While narrating about the disease *Padadaha* all the *Acharya's* i.e. *Acharya Sushruta*, *Acharya Vagbhata*, *Acharya Madhavakara* narrate the same *Samprapti*, which is *vata* when associated with *Pitta* and *Rakta* produce Burning sensation in the foot (sole) and in especially who walks too much and then the disease is called as *Padadaha*. Without *Vata* aggravation this disease can't be originated so that's why this disease comes to the *Vata Vyadhi*.

### Review of *Padadaha* In Relation To *Kshipra Marma*:

*Kshipra Marma* is one of the delicate and vital points of the body located in the hands and feet<sup>(13)</sup>.

#### Location:

*Kshipra Marma* is located both in the upper and lower limbs. Situated in b/w big toe and second toe.

#### Number:

*Kshipra Marma* are 4 in number , 2 in hands ( 1 in each foot)  
 1 each in the right and left hand : 2  
 1 each in the right and left foot:2

### Categories:

Categories in which the *Kshipra Marma* is included. *Kshipra Marma* is classified into various categories. They are as below mentioned:

- 1) **Shakagata Marma:** Since *Kshipra Marma* is located in both upper and lower limbs; they are classified under *ShakagataMarma* i.e. *Marmas* located in limbs.
- 2) **Snayu Marma:** This *Marma* is predominately made up of *Snayu* i.e. tendons and nerves, which form the structural component of this *Marma*. The other elements are dormant or recessive, namely *Sira* (blood vessels), *Asthi* (bones), *Sandhi* (joints), and *Mamsa* (muscles).
- 3) **Kalantara Praanahara Marma:** (*Kalantara*- gradual, *Pranhara*- life taking) *Kshipra Marma* possesses a threat to life in due course of time (doesn't cause immediate death) following its injury. The impact of injury or damage may not be immediate but happens gradually. Based on the impact of injury, *Kshipra Marma* is classified under *KalantaraPranhara Marma*.

In *Sushruta SharirSthan* eight chapter 26 *Shlok Acharya Shushruta* also mentioned:

तत्रपाददाहपादहर्षविबाहुकचिप्पविसर्पवातशोणितवातकण्टकविचर्चिकापाददारीप्रभृतिषुक्षिप्रमर्मणउपरिष्ठाद्दह्य  
 इंगुलेत्रीहिमुखेनसिरांविध्येत्(सु०शा०८/२६)

*Acharya Sushruta* explains that in *Padadaha*, *Padaharsha*, *Chippa*, *Vatarakta*, *Padadari*, *Vatakantaka*, *Avabahuka* the *Siravedhan* is done 2 angula above the *Kshipra Marma*<sup>(14)</sup>.

### According To Modern Point Of View<sup>(15)</sup>:

Burning feet can be difficult to live with ,especially if the pain and burning sensation seem to never go away. However there is several cause of burning feet.

### Causes Of Burning Foot

A burning sensation in our feet may be caused by:

1. Neuropathy In most people the leg nerve becomes damaged first . These people often have tingling and numbness in their feet.
2. Diabetes and Alcohol intoxication.
3. Vitamin deficiency. (Vit-B12)
4. Lyme disease.
5. Vasculitis (Inflammation of blood vessels)
6. Drug side effects include chemotherapy drugs, vitamin B6 overdose, HIV medicine, and others.

### Management

*Acharya Charaka* explained that when there is *Vata Prakopa* in *Rakta Dhatu*, cold *Pralepa*, *Virechana*&*Raktamokshana* procedures should be done.

According to *Acharya Sushruta* in diseases like *Padadaha*, *Padaharsh*, *Avabahuka*, *Chippa* etc, the *Sira Vedhan* should be done with *Vrihimukha* instrument two fingers above the *Kshipra Marma*. Here *Acharya* mentioned the particular *Sira* i.e. two fingers above the *Kshipra Marma* which is to be punctured in *Padadaha*.

### *Siravedhan Vidhi* (Method of Venue puncture)<sup>(16)</sup>

A patient who has undergone the process of *Snehan* (oleation) and *Swedan*(fomentation), who has taken a liquid diet and *yavagu*(gruel) which act as an antidote against body *Doshas*, should be brought to the surgeon at the proper season (not in rainy or winter season) and made to sit or lie down in a position which does not hinder the vital functions. The part chosen for the vein puncture should not be tied too hard nor too loose by any cloth, skin the inner fibres of the bark or creepers. Then search for the site of puncture with proper instruments.

### ***Siravedhan Kala*<sup>(17)</sup>**

Generally, the *Pitta Dosha* is vitiated in the *Sharad* (autumn) *Ritu*. *Rakta* vitiation is induced by *Pitta* provocation so in the *Sharad Ritu Raktamokshana* should be carried out. *Acharya Sushruta* has further mentioned that the *Siravedha* should be performed on patients during *varsa* (rainy season) puncturing should be done on days which are not cloudy, during *Grishma* (summer) at the time which is cool.

### ***Rakta Vishravana Pramana*<sup>(18)</sup>**

Bleeding one *prastha* quantity of *Dusta Rakta* is regarded as enough for a strong and adult patient having a large quantity of the aggravated *Dosha*.

### ***Samyak Siravedha Lakshan*<sup>(19)</sup>**

When proper instrumentation (puncturing) has been done, blood flows out in a stream for one *muhūrta*(28 min) and then stops on its own accord; this should be understood as proper puncturing. Just as yellow liquid flows out first from flowers of *kusumbha* (when crushed), similarly vitiated blood flows out first when veins are punctured.

### ***VyadhaSthan(place of puncturing) in relation to Padadaha*<sup>(20)</sup>**

The vein should be punctured with a *Vrihimukha Shastra* (instrument) at a distance of two fingers above the seat of the *Kshipra Marma* in diseases such as *Padadaha*, *Padaharsha*, *Chippa*, *Visarpa*, *Vatarakta*, *Vatakantaka*, *Vicharchika*, *Padadari*, *Avabahuka* etc.

### **Discussion:**

When *Vata* is mixed with *Pitta* and *Rakta* which causes a burning sensation on the foot while walking or moving as compared in a relaxing position.

*Padadaha* is the only symptom described in various *Samhita* of the disease *Padadaha*. While narrating about the disease *Padadaha* all the *Acharya's* i.e. *Acharya Shushruta*, *Acharya Vagbhata*, *Acharya Madhavakara* narrates the same *Samprapatti*, which is *vata* when associated with *Pitta* and *Rakta* produces Burning sensation in the foot (sole) and in especially who walks too much and then the disease is called as *Padadaha*. Without *Vata* aggravation this disease can't be originated so that's why this disease comes to the *Vata Vyadhi*.

*Acharya Sushruta* has indicated puncturing site of *Sira* in relation to *Padadaha* is the Location between the big toe and the second toe is the *Kshipra Marma*. The dorsal venous arch is located two fingers above the *Kshipra Marma*. Two dorsalis digital veins together form the dorsalis metatarsal vein. The dorsal venous arch forms the dorsal metatarsal vein and dorsalis pedis vein together. The dorsalis arterial (arcuate) arch and deep peroneal nerve should be located near the dorsal venous arch. So as per the above information in *Padadaha*, *Padaharsha*, *Chippa*, *Visarpa*, *Vatarakta*, *Vatakantaka*, *Vicharchika*, *Padadari*, *Avabahuka* *Siravedhana* is done in two fingers above the seat of the *Kshipra Marma* (in between great toe and second toe) i.e., the dorsal venous arch which is situated above the *Kshipra Marma*. So, the vein recommended for *Siravyadha* may be the dorsal venous arch.

### **Conclusion:**

In conclusion, *Padadaha* is a condition resulting from the combination of *Vata*, *Pitta*, and *Rakta*, leading to a burning sensation in the feet, particularly aggravated by movement. Since *Rakta Dosha* is involved, *Siravedha*(venesection) is an effective treatment for *Padadaha*. The superficial vein most suitable for



*Siravedha* at the indicated site is the Dorsal Venous Arch, as it meets all the criteria outlined by *Acharya Sushruta*. Therefore, the Dorsal Venous Arch *should be the preferred site for Siravedhan* therapy in managing *Padadaha*.

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