



AN ANATOMICAL EXPLORATION OF THE SITE OF *VEDHYA SIRA* IN *APACHI* AS DESCRIBED BY *ACHARYA SUSHRUTA*

Dr. Abhilasha Meena¹, Dr Sandeep Madhukar Lahange², Prof. Vikash Bhatnagar³,

Dr Akanksha Rana⁴

¹ PG Scholar, ² Associate Professor, ³ Professor, ⁴ Assistant Professor

^{1,2,3,4} Department of Rachana Sharira

^{1,2,3} National Institute of Ayurveda (Deemed to be University), Jaipur, ⁴Awasthi Ayurvedic Medical college Nalagarh (HP)

ABSTRACT

In *Ayurveda* text there is an immense description of *Sharir*, out of which *Sira Sharir* is one. Our *Acharya* has described the *Sira* in ancient literature. In that order *Acharya Sushruta* has described the *Sira* in *Sharir Sthana* chapter –7 and 8. The *Sushruta Samhita* is one of the three great treatises (*Brahattrayi*) of *Ayurveda* representing mainly the school of surgery. The *Sharir Sthana* of *Sushruta Samhita* is considered best among all others. *Sushruta* was the pioneer who described the method of dissection of human cadaver & emphasized on the importance of dissection in study of anatomy. *Siravedhna* has been one of the most effectively used procedures among various methods described in indian classical surgery. The school of *Sushruta* applied this technique therapeutically as well as prophylactically. Just as a properly and well administered *Basti chikitsa* is considered as half the treatment in internal medicine, similarly *Siravedhana* covers half of the treatment in surgery. In this advance era of modern science this procedure is relatively simple to carry out. There are many sites of *Siravedhna* described in the *Samhita* but its practical application now a day is very limited. Thus, the references in the *Samhita* need to be further explore for its practical applicability. A scientific study is thus needed to know the exact anatomical site and name of the particular *Sira* to perform *Siravedhna*.

Key word- *Siravedhana, Apachi, Indrabasti Marma*

INTRODUCTION

Charaka Samhita

Charaka added few new things to make the understanding clear about the vascular system. He was the first person to give the definitions of *Sira*, *Dhamani* and *Srotas* in *Sutra Sthana* 30th chapter.

In his opinion *Sira*, *Dhamani* and *Srotas* are different structures. He said that *Dhamani* pulsates and *Sira* do not. He envisages that where the *Sarana* (flow) function is achieved the structure is known as *Sira*.¹

Sushruta Samhita:

It was found so many references regarding *Sira* in different parts of *Sushruta Samhita*. But in *Sharir Sthana* he was described completely about *Sira* in 7th chapter '*Sira Varna Vibhaktikaran Shariram*' and 8th Chapter '*Sira Vyadha Vidhi Shariram*' Beside these two chapters in 9th Chapter '*Dhamni Shariram Vyakarnam*' he was differentiating *Sira*, *Dhamani* and *Srotas*.

Moola Sthana of Sira:

1. *Sushruta* has stated that *Sira* originate from *Nabhi* and they spread upward, downward and in oblique fashion from *Nabhi*^{2,3} Pranas of the living beings stay in *Nabhi*. *Nabhi* is surrounded by *Sira* in the same way as the nave of the wheel is surrounded by spokes⁴.
2. According to *Vagbhatta* the origin of *Sira* starts from *Hridaya* itself.⁵
3. According to *Charaka* -Ten *Dhamani* are starting from *Hridaya*.⁶

Sira Sankhya

Total numbers of the *Sira* are 700. The *Moola* (Root) *Sira* are 40. These classified into 4 types on the basis of carrying *Vata*, *Pitta*, *Kapha* and *Rakta*.⁷

Sadanga Anusaar Sira Sankhya Vibhajan:

According to *Sushruta* body is divided into six major parts. These are *Urdhwa Shakha* (Upper limbs), *Adha Shakha* (Lower limbs) *Madhyasharir* (Trunk) and *Urdhwajatra* (head and neck)⁸

The number of *Sira* related to these six parts following way.⁹

¹ ध्मानद्धमन्यः स्रवणात् स्रोतांसि सरणात्सिराः । (च.सु. 30/12)

² तासां नाभिर्मूलं ततथ प्रसरन्त्यूर्ध्वमधस्तिर्यक् च धावत्यस्तु सिराः कार्ये संभवन्ति शरीरिणाम् (सु.शा. 7/3)

³ नाभ्या सर्पा निवास्ताः प्रतन्वन्ति (प्रवर्तन्ते पा०) समन्ततः ॥ (सु.शा. 7/4).

⁴ नाभिस्याः प्राणिनां प्राणाः प्राणानाभिव्युपाचा । सिराभिरावृत्तानामिचकनाभिरिवारकैः ॥ (सु.शा. 7/5)

⁵ दश मूलसिरा हृत्स्थास्ताः सर्व सर्वतो वपुः, रसात्मकं वहन्त्योजस्तनिर्धहि चेष्टितम् ॥ (अ.ह.शा. 3/18,19)

⁶ अर्थे दश महामूलाः महासक्ता महाफला । महत् च अर्थः च हृदयं पर्यापच्यते युद्धेः । (च.सू. 30/1)

⁷ तासो मूलसिराधत्वारिंशत् तासां वातवाहिन्यो दश, पित्तवाहिन्यो दश, कफवाहिन्यो दश दश रक्तवाहिन्यः तासा तु वातवाहिनीनां वातस्थानगतानां पञ्चसप्ततिशतं भवति तावत्य एवं पित्तवाहिन्यः पित्तस्थाने, कफवाहिन्यश्च कफस्थाने, रक्तवाहिन्यश्च यकृत्फलीदृगोः एवमेतानि सप्त सिराशतानि ॥ (सु.शा. 7/6)

⁸ तथङ्ग शाखा चतस्रो, मध्यं पहजे, पूर्व विहर इति । (सु.शा. 5/4)

⁹ सिराशतानि चत्वारि विद्याच्छाखासु बुद्धिमान्पविंच शर्त कोष्ठे चतुः च मूर्धनि ॥ (सु.शा. 7/20)

- Number of *Sira* in *Urdhwa Shakha*-200
- Number of *Sira* in *Adha Shakha*-200
- Number of *Sira* in *Madhyasharir*-136
- Number of *Sira* in *Urdhwajatru*-164

Avedhya Sira:

Those *Sira* in the body which the physician should not puncture is called *Avedhya Sira*. These *Sira* are prohibited for puncture. *Sushruta* has described *Avedhya Sira* first time in history of medicine and surgery. *Sushruta* said that the physician or surgeon should not perform puncture because it would definitely cause disability or death.¹⁰

Sushruta and *Vagbhatta* considered among seven hundred *Sira* only 98 *Sira* should not be punctured. Remaining can be choosing for venepuncture in certain diseases. Division of 98 *Avedhya Sira* are 16 in *Sakha*, 32 in *Kostha* and 50 in *Jatrurdhva*¹¹

Siravyadha-Vidhi:

The methodology of *Siravedhana* is described by *Acharya Sushruta* in *Sharir Sthana* chapter 8 "*Siravyadha Vidhi Sharir*". *Sushruta* has elucidated the importance of *Siravedhana* as a major part of *Shalya Tantra* i.e., surgery it shows that *Siravedhana* was very effective and popular treatment modality at that time and was used in many of the diseases with tremendous results.

***Apachi*¹²**

Increased Medas (fat tissue) together with Kapha, gives rise to tumour in the region where the bone of the lower jaw (mandible), axilla, clavicle, shoulder joint, nape of the neck and throat (front of the neck) joins with the body. The tumour is static (immovable) round or broad, unctuous and has mild pain; such tumours of the size of Amalaka seed, spread like the shoal of the fish eggs, having the same colour as that of the body and growing steadily, is called as *Apachi* because of its slow and steady growth. These have itching and mild pain, disappear when pricked and appear at another site; this disease produced by Meda and Kapha is difficult to cure and persist for many years.

Samprapti:

Kapha and *Meda* are accumulated in *Hanvasthi*, *Akshakasthi*, *Bahu*, *Jangha*, and *Manya* producing *Granthi*. They are stiff, round, circular, less painful resembling seed of *Amalaki* and *Matsyanda Jala*.

Dosha involved:

Dosha: Kapha Pradhan Tirdosha

Dushya: Meda

¹⁰ अत ऊर्जामि न विध्येया सिरा भिषक वैकल्य मरणं चापि व्यधातास भुवं भवेत् ॥ (सु.शा. 7/19)

¹¹ शाखा षोडश सिराः कोष्ठे द्वात्रिंशदेवतु। पञ्चाशशोः परिकीर्तिताः ॥ (सु.शा. 7/21)

¹² हन्वस्थिकक्षाक्षकबाहुसन्धिमन्यागलेपूपचितं तु मेदः । ग्रन्थिं स्थिरं वृत्तमायतं या सिर कफ आपरुजं करोति । तं ग्रन्थिभिस्त्वामलकास्थिमात्रैर्मत्स्याण्डजालप्रतिमैस्तथाऽन्यैः । अनन्यवर्णैरुपचीयमानं चपप्रकर्षादपची वदन्ति ॥ सुनि 11/10.11)

Site of Siravedhana: Two *Angula*(4cm) below the *Indrabasti Marma*

DISCUSSION-

The surgical procedure of puncturing the *Sira* for therapeutic purposes and accomplishing the *Raktamokshana* is referred by the name *Siravedhana*.

The term *Siravedhana* comprises of two words *Sira* and *Vyadh/Vedhana*.

Vedhana is a type of Punctured wound and it should be performed by sharp pointed instruments.¹³

Acharya Sushruta has counted *Vedhana karma* in *Ashtavidha Shastra Karma* (surgical wounds.) *Siravedhana* is a one of the methods for *Raktamokshana*.¹⁴

The surgical procedure of puncturing the *Sira* for therapeutic purposes and accomplishing the *Raktamokshana* is referred by the name *Siravedhana*. *Vedhana* is a type of puncturing procedure and it should be performed by sharp pointed 102 instruments. For this surgical process, Vessels other than pulsating ones (artery) can be compared to vein. As *Raktavisravan* is done from the surface of the body so the superficial *Sira* (Vein) is preferred. Out of all veins, superficial veins are highly variable from person to person. So, the suitable veins for *Siravedhana* differ accordingly. The site of *Siravedhana* cannot be generalized.

Acharya has been described the *Avedhya Sira* and also explained their complications so that they should not be used for puncture as they may lead to death. Though *Acharya* has mentioned 98 *Avedhya Sira* in the body, the veins (*Sira*) those fulfil above criteria should not be used for *Siravedhana Karma*.

In this study, it is discussed about *Shadanga sharir* which is one of the fundamental concepts of *Ayurveda* mentioned mainly in *Brahattrayi*, it can be consider as Topology according to modern Anatomy. While describing the *shadangatva* of *Sharir Acharya* divided body mainly into six parts which is nearly equal to that of division of human body according to modern Anatomy. According to *Sushruta Adhoshakha/Sakthi* i.e., lower Limb is considered as part of body which starts from *Kati Sandhi* and ends at *Padanguli*, means a part start from the hip joint up to the heel, toes and phalanges, is known as *Adhoshakha* or lower Limb. That area region of *Adhoshakha* is exactly match with the lower Limb of modern Anatomy i.e., the area from hip and buttock up to the foot and toes is considered as *Adhoshakha* or lower Limb.

In Apachi: The site of *Siravedhana* mentioned was *Indrabastiradhashta Dvaya Angula* i.e., below the 4 *Angula* (aprox.7.8 cm) of *Indrabastimarma* Firstly we decide the site of *Indrabasti Marma*, that was mentioned as *Parshiprati Jangha madhya* i.e. In the middle of leg, from the line of heel. But *Dalhana* has given exact location of that *Marma*, was *Parshniprati Trayodash Angula thita* i.e., aprox. 24 cm above middle in the leg from the line of heel bone. For selecting that point we have given posterior position to the cadaver and at that point, firstly marked site of *Indrabasti Marma* by orange colour as a big dot. Then below 4 *Angula* (7.8 cm)

¹³ बेध्यम् अल्पमुखैः शस्त्रैर्व्यधनीयं सिरादि। (उल्हण - सु.सू.5 / 5)

¹⁴ तब शस्त्रकर्माऽष्टविधं तद्यथा छेयं, भेद्यं लेख्यं, बेध्यम्, एष्यम्, आहार्यं, विस्राव्य, सीव्यमिति ।। (सु.सु. 5/5)

from that point, a point of *Siravedhana* was marked by red colour. Dissection was performed we observed a structure identified as Small Saphenous vein.

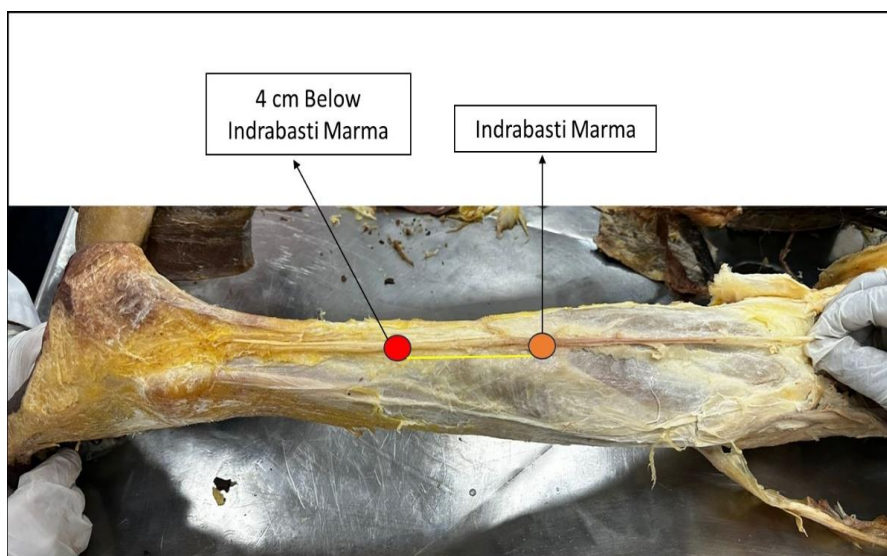


Figure (1.1) showing site of *Siravedhana* in case of *Apachi*

CONCLUSION-

Thus, *Siravedhana* is a very scientific therapeutic measure and it is not only the process to bleed. The science of *Siravedhana* is explained in *Sushruta Samhita* in "Sutra" form, but the logic behind it is very scientific. *Acharya* has not given a single site for *Siravedhana* in all diseases but he explains specific site for individual disease or group of diseases. The scientific reason behind it can be explored with the help of the knowledge of anatomy & physiology of vascular system and the homeostatic mechanism of the body, to use this therapy more effectively and precisely.