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Review Article

## A Review on Sira Vyadhana: An important Para-Surgical Procedure of Ayurveda

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### ABSTRACT

Sira Vyadhana is a type of Raktamokshana therapy, which is done for the purification of blood by removing the toxic substances. It is a para-surgical procedure which can cure several disorders if done properly. This method should be scientifically adopted all over the world through the guidelines mentioned in Ayurveda. This procedure is done using sharp metallic instruments, which can be completed within short period of time. By undergoing Sira vyadhana periodically, one can avoid skin diseases, blood borne disorders, oedema, lymph node enlargement etc. In the present society as there is increase of psychosomatic and stress related diseases there is a need of therapeutic procedure such as Sira vyadhana.

**Key words:** Ayurveda, Sira vyadhana, Raktamokshana, Para-surgical procedure.

### INTRODUCTION

Sira Vyadhana is one of the blood cleansing and purification therapy. It is the major process of detoxification of blood. Sira Vyadhana is formed by combination of two words 'Sira' which means blood vessel and "Vyadhana" means to Puncture. [1] So Sira Vyadhana means blood letting by puncturing the appropriate vein. Sira Vyadhana has been practiced as a para-surgical procedure since ancient time for prevention and treatment of Rakta Dusti which is one of the prime cause for many diseases. Acharya Sushruta has described practical guidelines for Sira Vyadhana along with twenty types of dusta vyadha (defective venepuncture) in detail [2] and claimed it as half of all of the surgical treatment. [3] This procedure is one of the type of the Raktamokshana which comes under the Pancha karma. According to Ayurveda there are two types of treatment

procedures. 1) Santarpana or brimhana (nourishing therapy) and 2)Apatarpana or langhana (depleting therapy). [4] Langhana is of two types, sodhana chikitsa (purifactory therapy) and samana chikitsa (palliative therapy). [5] Pancha karma is a type of Sodhana chikitsa which forcibly expels the dosha out of the body. [5] Pancha karma includes five types of therapeutic procedures which are Vamana karma (emetic therapy), Virechana karma (purgation therapy), Vasti karma (medicated enema), Raktamoksana (blood letting) and Shirovirechana (nasal medication). [6,7] Charaka has not included Raktamokshana under panchakarma, instead he has mentioned Asthapana vasti and Anuvasana vasti as separate procedures. [8] Reason behind this, may be Sushruta being related to the Dhanwantari school, emphasized Raktamokshana as one of the major para-surgical procedure while Charaka who was

from the school of Atreya has given more importance to Vasti and considered it as half of the entire therapeutic measures. [9]

### **Raktamokshana:**

Raktamokshana, the blood letting procedure is a kind of para surgery used especially for the treatment of Rakta dusti (blood-borne disorders). The synonyms of Raktamokshana are asra visruti, sonita mokshana, rakta nirharana, rakta sravana, rakta harana. It is one among the five purification therapy described by Acharya Sushruta. It is derived from the two words, 'Rakta' which means blood and 'Mokshana' which means to leave. Thus, Raktamokshana means to let the blood out. [10]

The vitiated blood should be expelled out from the body to reduce the quantity of toxic substances or else it leads to several blood borne disorders. Jalauka (leech) should be used in avagaada rakta, Pracchanna (scarification) should be done in pindita rakta, Sira vyadhana should be done in angavyapaka rakta and Sringa (horn) & Alabu (gourd) should be used in tvacha sthita Rakta. [3] By undergoing Raktamokshana, several diseases like skin diseases, blood borne disorders, oedema, lymph node enlargement etc., can be prevented. [12]

Rakta is considered as one among the Dasha praanaayatana by Charaka. [11,14] According to Astanga hridaya it is one among the ten Jeevitadhama. [13] According to Astanga samgraha it is one among the Dasha praanaayatana. [16] Blood is one of the major component of the body. It is formed from the Rasa which traverses through the Yakrut & Pleeha and gets coloured by the Tejo Mahabhuta. [15] The rakta which possess characters like indragopaka prateekaasam (colour of cochineal), neither be too thick nor discoloured is considered as Suddha rakta lakshanas. [18] It is responsible for strength, complexion, happiness and longevity of life. Blood plays an important role in regulating various systems of the body. It maintains Homeostasis. It supplies oxygen & nutrients to the body and removes waste from the

body. It regulates PH and core body temperature. Rakta dhatu ksaya leads to twak parusyam (dryness of skin) and vitiation of Rakta by pitta and kapha leads to several diseases like Kustha (leprosy), raktapitta (bleeding from different parts of body), visarpa (herpes), abscess, gulma (abdominal tumour), kaamala (jaundice), dadru (ring worm), charmadala (dermatitis), swithra (leucoderma), dyspepsia, fever etc. [17,20] In order to remove the vitiated blood from the body sira should be punctured. [19]

### **Types of Raktamokshana:**

Raktamokshana can be classified in to 2 groups

**1) Shastra visravana-** The process of blood letting which is done by using the sharp instruments. It is of two types. [19]

a) Pracchana- In this process the blood letting is done by means of Scarification.

It is used for disorders of ekadositha rakta & Pindita rakta.

b) Sira vyadhana- This is a Para-surgical procedure which is known as Venepuncture where the removal of blood is done by using scalpvein or needle. It is beneficial for sarvanga dosha.

**2) Anu Shastra Vidhi-** In this procedure the sharp metallic instruments are not used for removal of the blood. It is further classified into three categories. [23]

a) Sringa- It means applying the cow's horns. This is mainly done for treating the Vata disorders.

b) Jalauka- It is called as Leech therapy, where treatment is done by applying leeches. This is mainly done for the patients with Pitta dosha disorders, children, ladies, physically and mentally weak patients.

c) Alabu- It means creating vacuum and extracting blood through the vacuum using a vegetable i.e., bottle gourd. This is mainly done for treating the Kapha disorders.

### **Sira Vyadhana:**

Sira vyadhana is one of the types of Raktamokshana which is carried out by using an instrument having pointed end like needle. Particular veins are selected and

punctured according to the standard guidelines mentioned by Sushruta basing on the disease. Vyadhana is one among the sixty vranopakramas mentioned by Sushruta and one among the thirty six vranopakramas mentioned by Charaka. As Sira are slippery in nature and move to and fro like a fish, there is a need of experience and skill for the surgeon to become perfect in sira vyadhana procedure. [3]

### Sira:

Sira are the channels where the function of sarana (continuous motion) takes place. [21] They carry dosa, dhatu, ojas etc. from one part to other part of the body. [22] Their branches are large at the root and become small at the tip just like the veins of a leaf. [23] As a garden or a field is irrigated by the water carrying channels, similarly the body also receives nutrition by the sira through their contraction and relaxation movement. [27] Nabhi (umbilicus) is the moola sthana of sira. [27] Nabhi is surrounded by sira from all sides as the centre of wheel is surrounded by the spokes from all sides. [23] Charaka and Vagbhata mentioned Hridaya as moola sthana of sira. [24,29] They spread in urdhwa (upward), adhah (downward) & tiryak (oblique) direction in the body. [23] Sushruta has mentioned 700 sira in the body. [23] Among them the moola sira are 40 in number, [23] ten of each carry Vata, Pitta, Kapha and Rakta. When they reach the respective sites of dosha, each of them divide in to 175. Hence, they are distributed as Vataja-10 (which divides in to 175), Pittaja-10 (which divides in to 175), Kaphaja-10 (which divides in to 175) and Raktaja-10 (which divides in to 175). The total 700 sira are enumerated as 400 in shakha, 136 in kostha and 164 in urdhwa. [22]

### Classification of Sira:

Sira are classified in to 4 types according to their varna (colour).

Table 1: Classification of Sira based on their varna

Sl. no	Types	Colour	Dosha	Guna
1	Aruna	Red	Vata	Filled with vayu
2	Neela	Blue	Pitta	Ushna
3	Gaura	White	Kapha	Sheeta & Sthira
4	Rohini	Red	Rakta	Na ati ushna sheeta

In Surgical point of view, Sira can be classified in to 2 types- Vedhya Sira and Avedhya Sira. Among 700 sira, 602 can be used for the sira vyadhana. They are called Vedhya sira. But, Some sira if punctured leads to vaikalya (deformity) or Marana (death). [22] Hence, they should not be used for sira vyadhana, rather they should be protected from injury. They are known as Avedhya sira. They are 98 in number. [22]

Table 2: Region wise number of Vedhya and Avedhya Sira

Sino	Region	No.	Vedhya Sira	Avedhya Sira
1	Shakha	400	384	16
2	Koshtha	136	104	32
3	Jatrurdhwa	164	114	50
	Total	700	602	98

### Function of Sira: [22]

Vata vaha sira are responsible for kriyanam apratighatam, amogham and karma of buddhi. Pitta vaha sira are responsible for brajishnutha, anna ruchi, agni dipti and arogatam. Kapha vaha sira are responsible for snehamangeshu, sandhinam sthairyam and balam udirnmitam. Rakta vaha sira are responsible for dhatunam puranam, varna and sparsajnanam asamsayam.

### Procedure of Sira Vyadhana:

The whole procedure of the Sira Vyadhana can be done in three phases:

### Purva Karma

- The patient should be screened primarily before starting the procedure on the guidelines who are mentioned as contra-indicated for the procedure. [25] The selected patient should be given oleation (snehana) and sudation (swedana). The patient should be advised to take diet consisting mainly of liquid or gruel but counteracting the dosa causing the diseases. [25]
- Suitable time should be selected for the process and patient should be made to sit or stand in a position which does not interfere with vital life functions. [25]
- The particular part should be positioned and tied with cloth, leather, inner bark of trees or creeper without endangering his

life, neither too tightly nor too loosely. Then search and confirm the particular vein on the body of patient for pradhana karma. [25]

### Pradhana Karma

- According to the guidelines mentioned for the particular disease, the vein should be selected.
- The assistant should hold the patient by the instruction given by the surgeon.
- The patient should be instructed to take breathe comfortably and ask him to be free from tension.
- Then venepuncture should be performed appropriately with a proper sharp instrument. [26]

### Size of puncture

The size of Sira vyadhana in the mamsa pradesha is yava matra by Vrihimukha sastra. Other than mamsa pradesha, it should be ½ yava or vrihi matra by Vrihimukha sastra, where as in asthi pradesha it should be ½ yava matra by Kutharika. [26]

### Suitable time for Sira vyadhana karma

In rainy season on uncloudy day, in summer season on cool day and in autumn season on mid day Sira vyadhana should be done. [26]

The maximum limit of blood letting to be done is about one prastha. [27]

### Paschat Karma

- After the completion of pradhana karma, dressing is done with a gentle massage surrounding the wound by using the medicated oil.
- After successful Sira vyadhana bleeding should be stop by itself. [26] If the bleeding does not stop by itself, then gentle pressure should be applied with cotton for few minutes. If the bleeding still continues, then the patient should be done either of these Sandhana (process of adhesion), Skandana (cooling measures to congeal the blood), Pachana (process of suppuration), Dahana (cauterization). [28]

- The process of blood letting leads to ematiation, decrease in the digestive power and aggravation of vata. [28] Hence to prevent these, the patient should be prescribed with the diet which is not too cold, easy to digest, demulcent, hematinic and non-acidic food. [28]
- The patient should avoid the following till he regains strength or for one month-anger, sexual intercourse, day sleep, excessive talking, physical exercise, riding, exposure to too cold or too hot, contradictory diet, unsuitable diet and heavy food. [3]

### Samyak srava lakshana:

After puncturing the vein, the bleeding should be stopped by itself after certain time, which indicates that the blood letting is done properly. [26] The vitiated blood flows out from the punctured vein like the yellow juice oozes out from the flower of Kusumbha. [27] Then the person can observe some laksana like feeling of lightness, happiness, subsidence of pain as well as intensity of disease, which are considered as Samyak srava lakshana. [10]

### Asamyak srava lakshana:

Headache, blurring of vision, emaciation, convulsion, burning sensation, hemiplegia, monoplegia, hiccough, dyspnoea, cough, anaemia and death. They may be result due to Sira vyadhana done by quacks, done in excessive hot weather, done after excessive swedana and deep puncturing of the vein. [10]

If inadequate blood flow happens, leads to complications like oedema, burning sensation, inflammation & pain. [10]

### Indications of sira vyadhana: [29,30]

- Sonithaavaseka sadhya roga (blood borne disorders)
- Apakva roga (prodromal stage of disease)
- Vishopasarga (cases of poisoning)
- Athyayika (emergency conditions)
- Kustha (leprosy)

- Madha and Murcha (intoxication and fainting)

**Table 3: List of diseases with their anatomical sites of Sira Vyadhana** <sup>[27]</sup>

Sl. no	Disease	Anatomical site of Sira vyadhana
1	Pada daha	2 angula above kshipra marma
2	Pada harsa	2 angula above kshipra marma
3	Chippa	2 angula above kshipra marma
4	Visarpa	2 angula above kshipra marma
5	Vata sonata	2 angula above kshipra marma
6	Vata kantaka	2 angula above kshipra marma
7	Vicharcika	2 angula above kshipra marma
8	Padadari	2 angula above kshipra marma
9	Krostuka sirsha	On jangha 4 angula above the gulpha
10	Khanja	On jangha 4 angula above the gulpha
11	Pangu	On jangha 4 angula above the gulpha
12	Vata vedana	On jangha 4 angula above the gulpha
13	Apachi	2 angula below the indrabasti marma
14	Gridhrasi	4 angula above or below the janu sandhi
15	Visvachi	4 angula above or below the kurpara sandhi
16	Galaganda	Urumula
17	Plihodara	a)Vaama baahu near the kurpara sandhi, baahu madhye b)In between kanistika and anamika of left hand
18	Yakridalyudara	a)Daksina baahu near the kurpara sandhi, baahu madhye b)In between kanistika and anamika of right hand
19	Kaphodara	a)Daksina bahu near the kurpara sandhi, bahu madhye b)In between kanistika and anamika of right hand
20	Kasa	a)Daksina bahu near the kurpara sandhi, bahu madhye b)In between kanistika and anamika of right hand
21	Swasa	a)Daksina bahu near the kurpara sandhi, bahu madhye b)In between kanistika and anamika of right hand
22	Pravahika with sula	2 angula in front of sroni
23	Parivartika	Medhra madhye
24	Upadamsa	Medhra madhye
25	Suka dosa	Medhra madhye
26	Sukra vyapad	Medhra madhye
27	Mutra vridhhi	Vrisana parsva
28	Dakodara	Below the nabhi 4 angula at vamaparsvasevani
29	Anthar vidradi	In between kaksas and stana at vama parsva
30	Parsvasula	In between kaksas and stana at vama parsva
31	Baahu shosa	In between amsa
32	Apabahuka	In between amsa
33	Tritiyaka jwara	Trika sandhi madhya gatam
34	Caturthaka jwara	Below skandha sandhi
35	Apasmara	Hanu sandhi madhyagata sira
36	Unmada	a)Sankha keshanta sandhi b)Uras c)Apanga and lalata
37	Jihva & Danta roga	Adhojihva
38	Talu roga	Talu
39	Karna roga	Above the karna
40	Gandha agrahana	Naasagre
41	Nasa roga	Naasagre
42	Timira	Upanasika, Lalata, Apanga
43	Aksipaka	Upanasika, Lalata, Apanga
44	Aksi roga	Upanasika, Lalata, Apanga
45	Siro roga	Upanasika, Lalata, Apanga
46	Adhimantha	Upanasika, Lalata, Apanga

**Contra-Indications of sira vyadhana:** <sup>[25]</sup>

- Children or too old people.
- Wounded, timid, tired, emaciated, weak persons.
- Who underwent emesis, purgation, medicated enema recently.
- Pregnant women.
- Who suffer with cough, asthma, consumption, hyperpyrexia, convulsions.
- Paralysis.
- Fasting and excessive thirst.
- Unconscious person etc.

**DISCUSSION**

Sira vyadhana is one of the types of Raktamoksana that comes under the Panchakarma. It is the process of blood letting by puncturing the appropriate vein for the therapeutic purpose of removing the morbid dosha from the body. Acharya Sushruta has given much importance to Rakta and considered it as the fourth dosha. <sup>[31]</sup> As in present society, people are much prone to life style disorders due to the increase of intake of junk food, irregular dietary habit, late night sleep, lack of



physical activity etc., the blood becomes toxicated. This leads to the cause of several diseases. So proper Sira vyadhana not only cure the ailments, it also prevents several diseases and also it helps to maintain the health of the healthy people. Sira vyadhana is considered as one of the important procedure in Pancha karma. As the diseases which cannot be relieved by procedures like snehana, swedana, nasya, kriya kalpa etc., can be cured by proper Sira vyadhana. [3] In Shalya tantra, Sira vyadhana is considered as half of the treatment just like Basti is considered as half of the treatment in Kaya Chikitsa. [3,9] One should have thorough knowledge about the sira because they are slippery in nature and moves to & fro like a fish. [3] Sira vyadhana is a popular para surgical procedure of Ayurveda since ancient time. Several diseases can be cured by proper Sira vyadhana procedure. It also prevents number of skin disorders, blood borne diseases etc. As Sira vyadhana can be done in emergency condition also, one should be thorough with all the sira in the body if not it leads to severe complications or Death of the patient. [3]

## CONCLUSION

Sira vyadhana can be practised as preventive therapy as well as curative therapy. This is a para-surgical procedure by which half of the surgical interventions can be prevented. Acharya Sushruta highlighted the importance of Sira vyadhana and mentioned its role in several diseases. Ayurveda mainly aims both preventive as well as curative aspect of the disease. [32] Sira vyadhana is one among such procedures which can able to cure as well as prevent several diseases if done properly.

## REFERENCES

1. Yadavji Trikamji Acharya, (editor). Sushruta Samhita with Nibandhasangraha Commentary of Dalhana Acharya. 7th ed. Reprint: Varanasi, Chaukhambha Orientalia, 2002; p.118.
2. Yadavji Trikamji Acharya, (editor). Sushruta Samhita with Nibandhasangraha Commentary of Dalhana Acharya. 7th ed. Reprint: Varanasi, Chaukhambha Orientalia, 2002; p.382.
3. Yadavji Trikamji Acharya, (editor). Sushruta Samhita with Nibandhasangraha Commentary of Dalhana Acharya. 7th ed. Reprint: Varanasi, Chaukhambha Orientalia, 2002; p.383.
4. Srikantha MKR. Astanga Hridayam of Vagbhata. Reprint ed. Varanasi (India): Chowkhamba Krishnadas Academy; 2008. Vol.1.p.191.
5. Srikantha MKR. Astanga Hridayam of Vagbhata. Reprint ed. Varanasi (India): Chowkhamba Krishnadas Academy; 2008. Vol.1.p.192.
6. Yadavji Trikamji Acharya, (editor). Sushruta Samhita with Nibandhasangraha Commentary of Dalhana Acharya. 7th ed. Reprint: Varanasi, Chaukhambha Orientalia, 2002; p.7.
7. Sharma R.K. Charak Samhita with Ayurveda Deepika Commentary of Chakrapani Datta. Reprint ed. Varanasi (India): Chaukhamba Krishnadas Academy; 2009. Vol.2. p.252.
8. Sharma R.K. Charak Samhita with Ayurveda Deepika Commentary of Chakrapani Datta. Reprint ed. Varanasi (India): Chaukhamba Krishnadas Academy; 2009. Vol.6. p.163.
9. Mohankumar V. R. Aradhyamath S. Review article on concept of raktamokshana. European journal of pharmaceutical and medical research. 2019,6(6), 314-317.
10. Yadavji Trikamji Acharya, (editor). Sushruta Samhita with Nibandhasangraha Commentary of Dalhana Acharya. 7th ed. Reprint: Varanasi, Chaukhambha Orientalia, 2002; p.65.
11. Sharma R.K. Charak Samhita with Ayurveda Deepika Commentary of Chakrapani Datta. Reprint ed. Varanasi (India): Chaukhamba Krishnadas Academy; 2009. Vol.1. p.585.
12. Sharma R.K. Charak Samhita with Ayurveda Deepika Commentary of Chakrapani Datta. Reprint ed. Varanasi (India): Chaukhamba Krishnadas Academy; 2009. Vol.2. p.454.
13. Srikantha MKR. Astanga Hridayam of Vagbhata. Reprint ed. Varanasi (India): Chowkhamba Krishnadas Academy; 2008. Vol.1.p.396.

14. Srikantha MKR. Astanga Sangraha of Vagbhata. Reprint ed. Varanasi (India): Chaukhambha Orientalia ; 2012. Vol.2.p.67.
15. Yadavji Trikamji Acharya, (editor). Sushruta Samhita with Nibandhasangraha Commentary of Dalhana Acharya. 7th ed. Reprint: Varanasi, Chaukhambha Orientalia, 2002; p.59.
16. Yadavji Trikamji Acharya, (editor). Sushruta Samhita with Nibandhasangraha Commentary of Dalhana Acharya. 7th ed. Reprint: Varanasi, Chaukhambha Orientalia, 2002; p.64.
17. Srikantha MKR. Astanga Hridayam of Vagbhata. Reprint ed. Varanasi (India): Chowkhamba Krishnadas Academy; 2008. Vol.1.p.308.
18. Sharma R.K. Charak Samhita with Ayurveda Deepika Commentary of Chakrapani Datta. Reprint ed. Varanasi (India): Chaukhamba Krishnadas Academy; 2009. Vol.1. p.576.
19. Srikantha MKR. Astanga Hridayam of Vagbhata. Reprint ed. Varanasi (India): Chowkhamba Krishnadas Academy; 2008. Vol.1.p.309.
20. Yadavji Trikamji Acharya, (editor). Sushruta Samhita with Nibandhasangraha Commentary of Dalhana Acharya. 7th ed. Reprint: Varanasi, Chaukhambha Orientalia, 2002; p.55.
21. Sharma R.K. Charak Samhita with Ayurveda Deepika Commentary of Chakrapani Datta. Reprint ed. Varanasi (India): Chaukhamba Krishnadas Academy; 2009. Vol.1. p.595.
22. Yadavji Trikamji Acharya, (editor). Sushruta Samhita with Nibandhasangraha Commentary of Dalhana Acharya. 7th ed. Reprint: Varanasi, Chaukhambha Orientalia, 2002; p.377.
23. Yadavji Trikamji Acharya, (editor). Sushruta Samhita with Nibandhasangraha Commentary of Dalhana Acharya. 7th ed. Reprint: Varanasi, Chaukhambha Orientalia, 2002; p.376.
24. Sharma R.K. Charak Samhita with Ayurveda Deepika Commentary of Chakrapani Datta. Reprint ed. Varanasi (India): Chaukhamba Krishnadas Academy; 2009. Vol.3. p.329.
25. Yadavji Trikamji Acharya, (editor). Sushruta Samhita with Nibandhasangraha Commentary of Dalhana Acharya. 7th ed. Reprint: Varanasi, Chaukhambha Orientalia, 2002; p.379.
26. Yadavji Trikamji Acharya, (editor). Sushruta Samhita with Nibandhasangraha Commentary of Dalhana Acharya. 7th ed. Reprint: Varanasi, Chaukhambha Orientalia, 2002; p.380.
27. Yadavji Trikamji Acharya, (editor). Sushruta Samhita with Nibandhasangraha Commentary of Dalhana Acharya. 7th ed. Reprint: Varanasi, Chaukhambha Orientalia, 2002; p.381.
28. Yadavji Trikamji Acharya, (editor). Sushruta Samhita with Nibandhasangraha Commentary of Dalhana Acharya. 7th ed. Reprint: Varanasi, Chaukhambha Orientalia, 2002; p.66.
29. Srikantha MKR. Astanga Hridayam of Vagbhata. Reprint ed. Varanasi (India): Chowkhamba Krishnadas Academy; 2008. Vol.1.p.397.
30. Sharma R.K. Charak Samhita with Ayurveda Deepika Commentary of Chakrapani Datta. Reprint ed. Varanasi (India): Chaukhamba Krishnadas Academy; 2009. Vol.1. p.412.
31. Yadavji Trikamji Acharya, (editor). Sushruta Samhita with Nibandhasangraha Commentary of Dalhana Acharya. 7th ed. Reprint: Varanasi, Chaukhambha Orientalia, 2002; p.99.
32. Sharma R.K. Charak Samhita with Ayurveda Deepika Commentary of Chakrapani Datta. Reprint ed. Varanasi (India): Chaukhamba Krishnadas Academy; 2009. Vol.1. p.600.

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