

SIRAVYADHA: PERSPECTIVE FROM SUSHRUTA SAMHITA W.S.R TO AVEDHYA SIRA**Dr. Shrutika Ishwarlal Nikhade*¹, Dr. Prashant P. Pimpalkar², Dr. Alka S. Charde³ and Dr. Nirmala Chandrabhanji Apaturkar⁴**¹MD Scholar, Rachana Sharir Dpt., Bhausahab Mulak Ayurved College Nandanvan, Nagpur, Maharashtra, India.²Asso. Professor, Mansarovar Ayu. College, Madhyapradesh, India.³Prof & HOD Rachana Sharir Dpt, Bhausahab Mulak Ayurved College, Nandanvan, Nagpur, Maharashtra, India.⁴Lecturer Rachana Sharir Dpt, Bhausahab Mulak Ayurved College, Nandanvan, Nagpur, Maharashtra, India.***Corresponding Author: Dr. Shrutika Ishwarlal Nikhade**

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Article Received on 05/10/2020

Article Revised on 25/10/2020

Article Accepted on 15/11/2020

ABSTRACT

Sushruta Samhita is considered to be the most advanced compilation of Surgical practices prevalent in India around thousands years ago. Acharya Sushruta explains the Importance of Blood in the body, diseases caused due to vitiation of blood and treatment for the same. Main principle of treatment is Bloodletting to be considered as Raktamokshana in Ayurveda. Raktamokshana means letting out of blood which is mainly indicated in certain illness and there is variety of modes for Raktamokshana. Acharya Sushruta advocate that if all the fivefold purificatory procedure cannot be performed due to lack of time then, even 'Raktamokshana' can serve the purpose. Siravyadha is the most important method in all conditions where Raktamokshana is indicated and considered as an ardhachikitsa in all therapeutic procedures mentioned in shalya tantra (surgery).^[1] Sushruta applied this technique therapeutically as well as prophylactically. The superficial veins are considered to be most suitable for Siravyadha. Practice of siravyadha requires a good degree of anatomical knowledge regarding vedhya- vedhya siras, the exact sites where siravedhan could be done and also the other vital structures to be avoid from injury.^[2] The present study focuses on literary perspective of Siravyadha from sushruta Samhita with a brief knowledge on Avedhya sira.

KEYWORDS: Sushruta Samhita, Raktamokshana, Bloodletting, Siravyadha.**INTRODUCTION**

Raktamokshana means letting out of blood which is mainly indicated in certain illness especially when there is raktadushti. These procedures destroys the raktaja vikara from its roots. It cleanse the vitiated blood and thus make the person become lusturous, indriya become clear or are able to recognize their objects in a ideal manner, his digestive fire functions well, is enriched with happiness, good nourishment and strength.^[3]

Types of Rakta-mokshana

Rakta-mokshana is of two types

1) Shastra-vishravana: It is the process which is done by the sharp instruments. It is of two types

- Prachchhana
- Siravyadha.^[4]

2) Anushastra-vishravana: It is more preferable for delicate persons because they are not made by sharp instruments. It consists of four methods

- Jalaukavacharana
- Shrungavacharana

- Alabu Avacharana
- Ghati Yantra

Amongst various methods of Raktamokshana described in Sushruta samhita, Siravyadha has been one of the most commonly used therapeutic procedure to remove the vitiated blood with the help of sharp instruments and specially used to treat sarvangagata rakta dushti janya diseases,^[5] and also relieves pain and redness immediately and considered as an ardhachikitsa in shalya tantra.

Some siras are not suitable for Siravyadha These siras are called Avedhya sira. A surgeon should not perform venesection on this siras would definitely cause disability or death.^[6] Our prime aim is to identify all the contra indicated sira mentioned by our text comparing with modern anatomical structures, so that we can avoid the venesection of the contra-indicated veins.

Indications and Contraindications of Siravyadha

Siravyadha is the method of treatment indicated in diseases caused due to the vitiation of Raktadhatu.

Table showing Indications and Contraindications of Siravyadha.

Indications of Siravyadha ^[7,8]	Contraindications of Siravyadha ^[9]
Visarpa (erysipelas);	Bala (very young) and Sthavira (very old);
Vidradhi (abscess);	Ruksha, kshatakshina (wounded and debilitated);
Pliha (Diseases of Spleen);	Bhiru (Timid);
Agnisadana (Dyspepsia);	Parishranta (tired persons);
Jwara (Fever);	Madyapa (Alcoholics);
Mukha Roga (Diseases of mouth);	Adhvastrakarshita (emaciated as a result of long journey and sexual intercourse);
Netra Roga (Diseases of Eye);	Vamita & Virikta (who have undergone Vamana and Virechana therapies)
Siro Roga (Diseases of Head);	Asthapita & Jagrita (those who have undergone Asthapanavasti and who have not slept at night);
Mada (Intoxication);	Anuvasita (those who have undergone Anuvasanavasti);
Trishna (Thirst);	Kliba (impotent);
Lavanasyata (Salty taste in the mouth);	Krishna (Emaciated);
Kushta (Skin diseases);	Garbhini (in pregnancy);
Vatarakta;	Kasa & Shwasa;
Raktapitta;	Pravruddha Jwaravastha (chronic fevers);
Katu and Amlodgara (Pungent and Sour eructation);	Those afflicted with Akshepaka Vata, Pakshaghata,
Bhrama (Giddiness) etc.	Those who are afflicted with Pipasa and Murccha

Siravyadha should not be done on days which are very cold, very hot, with heavy breeze and very cloudy and never in the healthy persons (except Sharad Ritu). Also, those who have swelling all over the body, who are emaciated due to intake of sour food (for a long time), who are suffering from disease such as anaemia, haemorrhoids, abdominal enlargement, tiredness, oedema and pregnant women.

Materials^[10]

Siravyadha is one of the Shashtra Karma out of eight and same as one of the Upakrama out of shashti Upakrama described in Vrana chikitsa in Sushruta Samhita. So for the better performance of Siravyadha and for the management of the complications, the following material should be arranged prior to the procedure.

- Proper place (pleasant atmosphere), Kutharika Shashtra, Vrihimukha Shashtra,
- Oil (for Snehana), Swedana Yantra scalp vein (no. 20),
- Bandhana materials (tourniquet etc.), Swabs, Bandages,
- Sphygmomanometer, Gauze piece Kidney trays,
- Kashaya for wound washing, Water container, Hot and cold water,
- Raktaskandana Upakarana etc.

Vyadhana Kala for Siravyadha^[11]

Three suitable times of Siravyadha are mentioned.

1. During Varsha Ritu (rainy)- Should be done on days which are not cloudy;
2. During Grishma Ritu (summer)- At the time which is cool;
3. During Hemanta Ritu (winter) - At mid-day.

Vyadhana Pramana

In muscular areas, puncturing should be of the size of the Yava (barley grain) in other areas it should be ½ Yava or one Vrihi (rice) using a Vrihimukha Shashtra. Veins on the bones should be punctured to the size of ½ of Yava using a Kutharika Shashtra.

Siravyadha Vidhi^[12]

In Proper Asana (position required for proper puncturing), bloodletting should be done by the physician on the day which is neither very cold nor very hot, neither before sudation (Swedana) therapy nor after too much of sudation. It should be adopted after the patient has been satisfied with a drink of Yavagu (thin gruel) mixed with ghee or oil.

Samyak Siravyadha Lakshana: The intelligent physician, even though may allow little quantity of vitiated Rakta remaining inside the body, but should not allow excess flow of blood; the remaining Doshas should be mitigated by conservative line of management,^[13] When proper puncturing has been done, blood flows out in a stream for a period of one Muhurta and then stops on its own accordingly; 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. When the blood stop by itself after adequate flow, then it should be considered as pure (un vitiated and as properly drained).

Srava Pramana^[14] In middle aged persons who are strong and have great accumulation of Doshas and who maximum one Prastha ~768 ml of blood should be allowed to flow out after Siravyadha.

Proper Dressing: After completion of procedure whenever blood flow stops automatically, Yantrana

should be removed and instrument should be withdraw. Tight dressing should be applied on the wound

Pathya – Apathya: The patient should be treated with food which are not very cold, which are light (easily digestible), unctuous, which promote blood formation and either slightly sour or devoid of sour. After bloodletting, the patient should avoid the exercise, copulation, cold breeze, one meal a day, day sleep, use of alkalis, pungent substances in food, grief, much conversation and indigestion till he attains good strength.

Defects of Siravedha:^[15] There are 20 types of defects relating to an opened vein (Dushta – Vyadhana). They are as follows – Durviddha, Atividhha, Kunchita,

Pichchita, Kuttita, Aprasruta, Atyudirna, Kunita, Vepita, Anuththita Viddha, Shastra Hata, Tiryaka Viddha, Avyadha, Vidhruta, Dhenuka, Punahpunahviddha And Sira-Snayu-Asthi-Sandhi Marma Viddha.

Avedhya sira^[16]

Sushruta discusses specific and detailed study of Siravyadha as well as Avedhya Siras first time in the history of medicine and surgery. The siras not suitable for venepuncture, are called as Avedhya Sira. He mentioned 98 Avedhya Siras out of 700 total siras and said that the physician or surgeon should take care at the time of Siravyadha or any other surgical condition. Any trauma on these structures may lead disability or death.

2. Table showing Avedhya sira

Regions/ locations	Numbers	Sanskrit names	According to Dr.B.G. Ghanekar (Sushruta sharirasthana commentary) modern correlation of Avedhya sira ^[16]
Sakthis /bahu (upper and lower limbs)	8+8	(i)jaaladhara (ii) urvi (iii) lohitaksha	Great sephanous veins, femoral vessels, cephalic veins, brachial vessels, axillary vessels
Shroni(inguinal and gluteal region)	8	(i)Vitapa (inguinal or groin) (ii) Katikataruna	spermatic vessels Gluteal vessels
Parshva (flanks)	4	-	There is no such big artery and vein in the lateral side of the body.
Prishtha vansha	2	Brihati	Subscapular artery
Udara (above the penis and the side of romaraji)	4	-	Inferior epigastric vessels
Vaksha (thorax/ chest)	14	(i)Hridaya (ii)Stanamoola (iii)Stanarohita (iv)Apalapa	Intercostal vessels Internal mammary vessels Lateral thoracic vessels
Greeva (neck)	16	i)Ashta-matrika (ii)Krikatika (iii)Vidhur	External, internal carotid arteries and jugular veins. Occipital vessels Posterior auricular vessels
Hanusandhigata (tempero-mandibular joint)	4	-	Internal maxillary vessels
Jihva (tongue)	4	(i)Rasavaha (ii)Vakvaha	Profunda lingulae vessels
Nasa (nose)	5	Aupnasika	Angular vessels
Talu (palate)	2	Talu sira	Palatine vessels
Netra (eyes)	2	Apanga sira	Zygomatico -temporal vessels
Karna (ears)	2	Shabdavahi sira	Anterior tympanic vessels
Lalata- nasa- netra gata (vessels located in forehead but runs towards the nose and eyes orbit)	5	(i)Keshantanugata sira (hairline) (ii) Aavarta (iii)Sthapani	The nasal branch of frontal vein and branches of superficialtemporal arteries. Frontal branch of superficial temporal vein
Shankha (temporal)	2	Shankhasandhigata sira	Superficial temporal vessels in the temporal region.
Murdha (head)	8	(i) Utkshepa (ii) Seemanta (iii)Adhipati	Parietal branch of superficial temporal vessels. Branches of occipital and superficial temporal vessels.

DISCUSSION

Raktamokshana or Bloodletting is the method of treatment indicated in diseases caused due to the vitiation of Raktadhatu. Acharya Susruta further says that, this is the only therapy which helps in eliminating all the three vitiated Doshas at a time. Diseases of the skin, tumours, swelling and diseases arising from blood will never occur in persons indulging in bloodletting.

Siravyadha is one of the fascinating subject and satisfactory answer for many illnesses.

It is nothing but venepuncture. Difference is that Siravyadha is employed as single therapeutic procedure in order to treat a diseased condition whereas venepuncture may be diagnostic or a part of therapeutic procedure rather than being an independent treatment procedure. The entire body is nourished by sira, to alleviate vitiation of dosha involving a large area of body raktamokshana from sira is the only way as it exerts its effect on the entire body.^[17]

In general, various probable mechanisms are going to change in body by bloodletting, such as local blood supply local metabolism which is going to be improved, local fresh RBCs are produced which are active.^[18] And thus by these virtue, it is very much useful in many health ailments (especially Raktaja vikara) if judiciously administered and it is beneficial in physiological maintenance of well-being.

Avedhya Sira denotes prohibition of Siravyadha, if they undergo trauma due to surgery or injury, they may produce pathological conditions sometimes fatal to life (due to trauma to vital points which are considered as Marma). Ghanekar's concept for Avedhya Siras of extrimities being major vessels of limbs give the idea of vascular phenomenon, but he has not discussed them for Avedhya point of view with accurate reasoning.

CONCLUSION

Ayurveda shows the glimpses of excellence by the means of procedures like Siravyadha. In Ayurveda, siravyadha or bloodletting is ardhā chikitsā in all therapeutic procedures mentioned in shalya tantra (surgery). It is indicated in therapeutic as well as prophylaxis. It is capable of providing relief in many health problems and hence should be practice on more and more number of patients with the aim of standardizing and promoting it as one of the better treatment modality. Practice of siravyadha requires a good degree of anatomical knowledge regarding Vedhya-Avedhya Siras, exact site of Avedhya sira to avoid injury to vital structures and to ease the procedure.

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