



CRITICAL ANALYSIS ON ROLE OF *RAKTAMOKSHANA* IN *SHALYA TANTRA VYADHIS*

Dr. Girish Desai^{1*}, Dr. Vishwanath Sharma² and Dr. S. V. Shailaja³

¹2nd Year PG Scholar, Department of Shalya Tantra, Shri Kalabyaraveshwara Swamy Ayurvedic Medical College, Hospital and Research Centre, Bengaluru.

²Professor, Department of Shalya Tantra, Shri Kalabyaraveshwara Swamy Ayurvedic Medical College, Hospital and Research Centre, Bengaluru.

³Prof. and HOD, Department of Shalya Tantra, Shri Kalabyaraveshwara Swamy Ayurvedic Medical College, Hospital and Research Centre, Bengaluru.

Corresponding Author: Dr. Girish Desai

²nd Year PG Scholar, Department of Shalya Tantra, Shri Kalabyaraveshwara Swamy Ayurvedic Medical College, Hospital and Research Centre, Bengaluru.

Article Received on 08/02/2021

Article Revised on 28/02/2021

Article Accepted on 18/03/2021

ABSTRACT

Raktamokshana is one of the important procedures carried out in various *Shalya tantra vyadhis*. *Raktamokshana* is a type of *Shodhana* concerned with the removal of *Dushita rakta*. *Pracchana* and *Siravyadha* are types of *Sashastra Raktamokshana* whereas *Jaloukavacharana*, *Shruna*, *Alabu* are types of *Ashastra Raktamokshana*. *Raktamokshana* is indicated in various *Shalya tantra vyadhis* like *Dushta vrana*, *vranshotha*, *Granthi*, *Arshas*, *Vidradhi* and *Kshudra rogas* like *Indralupta*. It can also be used in various other conditions. Procedure, probable mode of action and importance of *Raktamokshana* in some common *Shalya tantra vyadhis* are discussed here.

KEYWORDS: *Raktamokshana*, *Shalya Tantra vyadhi*, *Siravyadha*, *Pracchana*, *Jaloukavacharana*.

INTRODUCTION

The diseases which require the intervention of surgical (*Ashtavidha Shastra Karma*) or parasurgical (*Kshara*, *Agni*, etc) procedures can be considered as *Shalya tantra vyadhi*.^[1] *Raktamokshana* is one of the important procedures carried out in various *Shalya tantra vyadhis*. It is a *Shodhana* procedure by which vitiated *Rakta* is expelled.^[2] *Raktamokshana* can be classified as *Sashastra* and *Ashastra Raktamokshana* based on the type of equipment used for the procedure. *Pracchana* and *Siravyadha* are considered as *Sashastra Raktamokshana* techniques whereas *Jalouka*, *Alabu*, *shruna* are techniques of *Ashastra Raktamokshana*.^[3] Importance of *Siravyadha*: Among all the treatment methods for *Sadhya rogas*, *Siravyadha* is the best, just like how the paddy and other crops dry out completely by removing the bunds of the field, *Siravyadha* helps to eliminate the disease completely.^[4] When other treatments fail, *siravyadha* has to be done for *Raktaprapopaja vikaras*.^[5] The conditions which do not subside with *snehadi kriya*, will subside with *siravyadha*.^[6] *Siravyadha* is considered as the *Ardha Chikitsa* in *ShalyaTantra*.^[7] As a preventive measure-*Raktamokshana* helps in preventing *twak vikara* (skin diseases), *Granthi* (non inflammatory swellings) and

Shohta (inflammatory swellings)\ and diseases due to vitiated *rakta*.^[8]

General Considerations before *Raktamokshana*

- Patient is to be informed about the procedure
- Informed Consent is to be taken from the patient
- Basic Investigations- TC, DC, Hb%, CT, BT, RBS, HIV, HbsAg.
- Blood Pressure is to be monitored.
- Patient is advised to stop thrombolytic medicine 2-7 days prior to the procedure.
- Patient is advised to have food before the procedure.
- Aseptic precautions have to be maintained.
- Materials required for the procedure are kept ready.

Pracchana

General Indication- *Pindita Rakta*, Specific Indications- *Vatarakta*, *granthi*, *pidaka*, *kota*, *Raktamandala*, *kushta* and *shohta*.^[9]

Materials Required

- Sterile Needle/Scalpel No. 11
- Antiseptic Solution
- Cotton pad, gauze, bandage

Purvakarma: As described in General considerations for *Raktamokshana*.

Pradhana karma

- The part where *pracchana* has to be done is cleaned using antiseptic solution.
- Multiple Pricks are made in a specific manner, till there is appearance of blood.
- Blood (Approximately 20ml) is allowed to ooze out from the site.
- *Pracchana* should be done -*Ruju*- in line, *Asankeerna*- Not joining each other, *Sookshma*- fine/ pointed, *Sama*- evenly, *Anavagada*- not very deep, *Anuttana*- not too superficial, *Ashu*- quickly, *Marma-sira-snayu Anupaghati*- without harming the *marma, sira, snayu*.^[10]

Paschat karma: The part is cleaned using cotton pad and pressure bandage is applied.

Probable mode of action of *Pracchana* in *Indralupta*:

In *Indralupta doshas* (*kapha, rakta, pitta, vata*) are lodged in the *Romakupas* and obstruct it, this limits the hair regrowth.^[11] *Pracchana* removes these vitiated *doshas*. *Pracchana* improves perifollicular vascularization. This helps in the better absorption of *lepa, taila* which are applied later.

Siravyadha

Indications: *Vidradhi, Kushta, Painful Vataja Ekadeshaja Shophya, Palyaamaya, Shlipada, Vishajushtha Shonita, Arbuda, Visarpa, Granthi, Stanaroga, Kshudra Rogas*.^[12]

Materials required for Siravyadha

- *Taila* for *Abhyanga*
- *Nadi Sweda Yantra* for *swedana*
- Surgical Spirit
- Cotton swabs, Guaze pieces
- Bandage Roll
- Tourniquet
- Scalp Vein set No.16 /18/ 20
- Kidney Tray/ Glass Beaker to collect and Measure the amount of Blood drained.

Purvakarma^[13]

- *Snehana- Sthanika Abhyanga* is done with suitable *taila*.
- *Swedana- Nadi Sweda* is given after *abhyanga*
- A Liquid diet of *Yavagu* has to be given
- Patient is made to sit comfortably (*Janusama Asana*)
- Eyes of the patient can be bound

Pradhana karma

- Tourniquet is tied above the site of *siravyadha*.
- A suitable vein is selected
- The patient is informed and then the vein is punctured

- As blood starts coming out, it is collected in measuring jar/glass beaker.
- Blood is allowed flow out till it stops on its own unless the patient feels discomfort.

Paschat Karma: The needle is removed and bandage is applied over the site. Foot end elevation is advised.

Vyadhana Pramana^[14]

- In *Mamsala pradesha- yava pramana*
- In All other areas- *Half Yava pramana* with *Vrihi mukha shastra*
- *Siras* present over the bones- *Half yava pramana* with *kutarika shastra*

Maximum Amount of Blood to be let out: One *Prastha*(~648ml) is the *Uttama matra*(Maximum Limit) for *Vayashta, Balina, Bahudoshha*.^[15]

Probable mode of action of Siravyadha in Siragranthi (Varicose veins)

Siravyadha is a line of treatment mentioned for *Siragranthi* (varicose veins) in Classics.^[16] In case of Varicose veins, due to venous hypertension there is stretching of the veins which causes pain, After *siravyadha*, by the removal of blood there is decrease in pressure in the veins thus reducing pain. The stasis of blood is removed by *Siravyadha* and also helps to increase pumping action of vein by creating negative pressure. Diffusion of RBC into the tissue and its lysis and release of haemosiderin causing pigmentation is all avoided as these RBCs are removed by *Siravyadha*. The free iron is utilized by the fresh blood flowing in, thus pigmentation doesn't occur. The breakdown of RBC also stimulates histamine at the site causing vasodilation, vascular permeability and itching which may further lead to eczema, but all this is prevented by the removal of the blood (RBC). Exchange of nutrients is possible now possible.

Jaloukavacharana^[17]

Purvakarma

1. Activation/Preparation of *Jalouka*: *Jalouka* is transferred to a vessel containing turmeric powder mixed with water for about one *muhurta*. *Jalouka* is activated by this.

2. Preparation of the Patient

- The Patient is made to sit or lie down comfortably
- The part is cleaned with antiseptic solution
- The area is then rubbed with *mrut/gomaya churna* (coarse powders)

Pradhana Karma

- The selected *jalouka* is made to bite the part.
- If it doesn't bite then a drop of milk/blood is put at its mouth/ a small prick is made over the affected area. Even after all these if the *jalouka* doesn't bite then another *jalouka* is taken.

- When it makes its mouth in the shape of a horse's hoof, lifts its neck, it is understood as to be sucking blood. As the the *Jalouka* sucks blood it is covered with moist cotton pad. *Jalouka* sucks about (5-15ml) of blood from an area of *hasta pramana*.

Pashchat Karma

- After (30-45 minutes) the leech detaches itself or is detached from the area by sprinkling *saindhava lavana churna* near its mouth.
- After this *Jalouka* is made to vomit the sucked blood and kept in fresh water. After assessing the *Yoga/Ayoga*, accordingly *shatdhouta ghrita abhyanga/pichu* is applied over the *Jalouka* vrana or *Madhu* is rubbed over the *Jalouka* vrana or *Sheeta jala pariseka* is done or *Kashaya, madhura, snigdha sheeta pradeha* is applied.

Probable mode of action of *Jaloukavacharana* in *Dushta vrana*

Jaloukavacharana removes the vitiated blood thus helps in providing relief from pain (inflammation). The saliva of leech contains substances like hirudin, hyalurodinase, hemetin, etc these have anticoagulant, vasodilator, local anaesthetic, anti inflammatory effects. These substances are injected into the lesion while the *Jalouka* is sucking the blood. Anticoagulants reduce clotting of blood. Vasodilators help improving capillary circulation in the part. Anti-inflammatory action helps fight infection. All these help relieve symptoms like pain, burning sensation, itching. Improved circulation promotes quicker healing of the wound.

Probable mode of action of *Jaloukavacharana* in *Vranashotha*

Vranashotha has 3 stages *Ama, pachyamana* and *pakva*, *Raktamokshana* is done in *Ama avastha*,^[18] it removes vitiated blood and fresh blood flows to the part, thus reduces inflammation. The substances present in saliva of *Jalouka* have Anticoagulant, Anti inflammatory and Vasodilators which help in improving circulation to the part. This also helps in reducing inflammation. Analgesic effect of the substances in the saliva of Leech help reduce pain.

DISCUSSION

- *Raktamokshana* is an effective procedure in various conditions. For example in *Dushtavrana* it helps in quicker healing by improving blood circulation.
- In *Siragranthi* it relieves symptoms like pain, burning sensation, itching, pigmentation by removing stasis of vitiated blood.
- In the earlier stages of *Vranashotha, Vidradhi*, inflammatory conditions it helps in reducing inflammation.
- In *Indralupta* it removes vitiated doshas which promotes nourishment and regrowth of hair. It helps in the better absorption of the *lepa, taila* applied.

- For localised conditions *Raktamokshana* can be done by *Pracchana*(*Angulamatrasya*), *Jalouka*(*Hastamatram*), *Shringa* and *Alabu* (*Dwadashangulam*) whereas *Siravyadha* is said to be *Sarvangashodhini*.^[19]

CONCLUSION

Raktamokshana is a type of *Shodhana* concerned with the removal of *Dushita rakta*. *Pracchana, Siravyadha* are the types of *Sashastra Raktamokshana* whereas *Jaloukavacharana, Shringa, Alabu* are types of *Ashastra Raktamokshana*. *Raktamokshana* is indicated in various *Shalya tantra vyadhis* like *Dushta vrana, vranashotha, Granthi, Arshas, vidradhi* and *kshudra rogas* like *Indralupta*, accordingly it can be used in various other conditions also. In people who undergo *Raktamokshana, Twakdosha, granthi, sophera* and *rogas* due to *dushta rakta* will not occur.

REFERENCES

1. Sushruta: Sushruta Samhita with commentary of Dalhana, edited by Vaidya Jadavaji Trikamji Acharya, Chowkhambasubhartiprakashan, Varanasi, reprint, 2014. Sutra sthana, 1st Chapter, Verse 8/1, Pp-824, Pg-3.
2. Acharya Vagbhata, Ashtanga Hrudaya; Sarvangasundara of Arunadatta & Ayurvedarasayana of Hemadri commentaries, Edited by Pandit Hari Sadashiva Sastri Paradakara; Varanasi: Chaukhamba Sanskrit Sansthan; Reprint, 2012. Sutra Sthana 14th chapter, Verse 5, Pp 956, Pg-223.
3. Sushruta: Sushruta Samhita with commentary of Dalhana, edited by Vaidya Jadavaji Trikamji Acharya, Chowkhambasubhartiprakashan, Varanasi, reprint, 2014. Sutra sthana, 14th Chapter, Verse 25, Pp-824, Pg-63
4. Acharya Vriddha Vagbhata, Ashtanga Samgraha; with the Sasilekha commentary by Indu, Prologue by Prof.Jyotir Mitra, Edited by Dr. Shivprasad Sharma; Varanasi: Chowkhamba Sanskrit series office; Reprint, 2008. Sutra Sthana, 36th Chapter, Verse 2, Pp 965, Pg-245.
5. Agnivesha, Charaka Samhita, Edited by Yadavjee trikramji Acharya, SutraSthana, 24th Chapter, Verse 18, Chaukhamba Sanskrit Sansthan; Varanasi: Reprint, 2007; Pp-738: 125.
6. Sushruta: Sushruta Samhita with commentary of Dalhana, edited by Vaidya Jadavaji Trikamji Acharya, Chowkhambasubhartiprakashan, Varanasi, reprint Shareera sthana, 8th Chapter, , 2014; Pp-824: 383.
7. Sushruta: Sushruta Samhita with commentary of Dalhana, edited by Vaidya Jadavaji Trikamji Acharya, Chowkhambasubhartiprakashan, Varanasi, reprint, Shareera sthana, 8th Chapter, Verse, 2014; 824; 383.
8. Sushruta: Sushruta Samhita with commentary of Dalhana, edited by Vaidya Jadavaji Trikamji

- Acharya, Chowakhambasubhartiprakashan, Varanasi, reprint, Sutra sthana, 14th Chapter, Verse, 2014; Pp-824: 64.
9. Acharya Vagbhata, Ashtanga Hrudaya; Sarvangasundara of Arunadatta & Ayurvedarasayana of Hemadri commentaries, Edited by Pandit Hari Sadashiva Sastri Paradakara; Varanasi: Chaukhamba Sanskrit Sansthan; Reprint; Sutra Sthana 26th chapter, Verse, 2012; Pp 956: 325.
 10. Acharya Vagbhata, Ashtanga Hrudaya; Sarvangasundara of Arunadatta & Ayurvedarasayana of Hemadri commentaries, Edited by Pandit Hari Sadashiva Sastri Paradakara; Varanasi: Chaukhamba Sanskrit Sansthan; Reprint; Sutra Sthana 26th chapter, Verse, 2012; Pp 956: 324.
 11. Sushruta: Sushruta Samhita with commentary of Dalhana, edited by Vaidya Jadavaji Trikamji Acharya, Chowakhambasubhartiprakashan, Varanasi, reprint, Chikitsa sthana, 20th Chapter, 2014; Pp-824: 479.
 12. Sushruta: Sushruta Samhita with commentary of Dalhana, edited by Vaidya Jadavaji Trikamji Acharya, Chowakhambasubhartiprakashan, Varanasi, reprint, Shareera sthana, 8th Chapter, Verse, 2014; Pp-824: 379.
 13. Sushruta: Sushruta Samhita with commentary of Dalhana, edited by Vaidya Jadavaji Trikamji Acharya, Chowakhambasubhartiprakashan, Varanasi, reprint, Shareera sthana, 8th Chapter, Verse, p-824, Pg-379.
 14. Sushruta: Sushruta Samhita with commentary of Dalhana, edited by Vaidya Jadavaji Trikamji Acharya, Chowakhambasubhartiprakashan, Varanasi, reprint, Shareera sthana, 8th Chapter, Verse, 2014; Pp-824: 380.
 15. Sushruta: Sushruta Samhita with commentary of Dalhana, edited by Vaidya Jadavaji Trikamji Acharya, Chowakhambasubhartiprakashan, Varanasi, reprint, Shareera sthana, 8th Chapter, Verse 16, 2014; 824: 381.
 16. Acharya Vagbhata, Ashtanga Hrudaya; Sarvangasundara of Arunadatta & Ayurvedarasayana of Hemadri commentaries, Edited by Pandit Hari Sadashiva Sastri Paradakara; Varanasi: Chaukhamba Sanskrit Sansthan; Reprint; Uttara Sthana 30th chapter, Verse, 2012; Pp 956: 884.
 17. Acharya Vagbhata, Ashtanga Hrudaya; Sarvangasundara of Arunadatta & Ayurvedarasayana of Hemadri commentaries, Edited by Pandit Hari Sadashiva Sastri Paradakara; Varanasi: Chaukhamba Sanskrit Sansthan; Reprint; Sutra Sthana 13th chapter, Verse, 2012; Pp 956: 57.
 18. Acharya Vagbhata, Ashtanga Hrudaya; Sarvangasundara of Arunadatta & Ayurvedarasayana of Hemadri commentaries, Edited by Pandit Hari Sadashiva Sastri Paradakara; Varanasi: Chaukhamba Sanskrit Sansthan; Reprint; Sutra Sthana 17th chapter, Verse, 2012; Pp 956: 82.
 19. Sushruta: Sushruta Samhita with commentary of Dalhana, edited by Vaidya Jadavaji Trikamji Acharya, Chowakhambasubhartiprakashan, Varanasi, reprint, Shareera sthana, 8th Chapter, Verse, 2014; Pp-824: 383.