

**JALAUKAVACHARANA – A COMPREHENSIVE OUTLOOK****Pooja Rajendran\***

Assistant Professor, Prasanna College of Ayurveda and Hopsital.

Article Received on  
20 March 2023,Revised on 10 April 2023,  
Accepted on 30 April 2023

DOI: 10.20959/wjpr20237-28068

**\*Corresponding Author****Dr. Pooja Rajendran**Assistant Professor, Prasanna  
College of Ayurveda and  
Hopsital.**ABSTRACT**

Raktamokshana is one of the bygone and salient parasurgical procedures described in Ayurveda which is being widely used for the treatment of various diseases. Among the different blood letting techniques like Siravyadha, Jalaukavacharana, Shringa, Alabu and Prachanna, Jalaukavacharana or Medicinal leech therapy has attained significant recognition widely, because of its medicinal values. The use of leeches dates back to ancient times and the references of Jalauka are available in – Rigveda, Atharvaveda, Garudapurana, Skanda purana and Mahabharata – i.e. since the Vedic period itself and further in the

Sangraha and Samhita period also. The following paper deals with the basic concept of Jalauka and Jalaukavacharana in detail.

**KEYWORDS:** Raktamokshana, Jalaukavacharana, Jalauka.**INTRODUCTION**

Anushastra karma was routinely practiced in the past and so much importance is given to it in the Ayurveda samhitas. Among the Anushastras, Raktamokshana enjoys a place of pride and of the various techniques for bloodletting, Jalaukavacharana is considered as the best and ideal method by the Acharyas and it is also quoted in Sushruta Samhita that the clinician who knows all about leeches, habitat, their method of collection, varieties, storage and method of application will be successful in treating the diseases amenable to them.<sup>[1]</sup>

**Jalauka – The Word & It's Synonyms**

The word Jalauka is formed with two components - Jala + Oka; i.e Animals having water as its dwelling place and the term Jalayu, a synonym of Jalauka, is made of two components – Jala + Ayu, i.e., “An organism that can't live without water” or “A creature whose life is water”.<sup>[2]</sup> Considering these two etymologies, Jalauka can be defined as an organism whose

residing place and existence is dependent on water. Jalauka is having many other synonyms like Jalaragi, Jalayuki, Jalika, Jalsika, Raktapayani, Raktasandamshika, Raktapata, Teekshna, Jalahjivani, Jalsarpini, Jalsuchi, Jalatanou, Jalapatatmika, Jalika, Jalaluka, Vanini, Vedhini, Venika<sup>[3]</sup> etc.

### Clasasification of jalauka

Ayurvedic literature has classified Jalauka into two main groups based on its medical utility<sup>[4]</sup>: Savisha Jalauka (Toxic leeches) & Nirvisha Jalauka (Non toxic leeches). Each group is having six sub-types.<sup>[Table No.1]</sup>

**Table No. 1: Classification of jalauka.**

Savisha jalauka	Nirvisha jalauka
Krishna	Kapila
Karbura	Pingala
Alagarda	Shankhamukhi
Indrayudha	Mooshika
Samudrika	Pundareekamukhi
Gochandana	Savarika

### General features of jalauka<sup>[5][Table No.2]</sup>

**Table No. 2: General features of jalauka.**

Savisha jalauka	Nirvisha jalauka
<b>Habitat:</b> Originates in the decomposed urine and fecal matter of toads and poisonous fishes in ponds of stagnant and turbid water.	<b>Habitat:</b> Originates in decomposed vegetable matter, putrified stems of aquatic plants like Padma, Utpala, Nalina, Kumuda, Pundarika etc. in clean water
<b>General Characters</b> 1.Thick and elongated middle portion 2.Both ends are thin 3.Slow locomotion 4.Sucks little quantity of blood 5.Less active 6.Unable to catch the host 7.Delay in sucking	<b>General Characters</b> 1.Strong and well built 2.Strong suckers 3.Quick sucking 4.Sucks large quantity of blood 5.Bluish stripes on the body 6.Round in shape

### Specific features of jalauka<sup>[6][Table no. 3]</sup>

**Table No. 3: Specific features of jalauka.**

Savisha jalauka	Nirvisha jalauka
<b>1.Krishna:</b> Black in color similar to that of Anjana Big head	<b>1.Kapila:</b> Body is Mudga colour, with manahshila (orange yellow realgar) colored stripes at the sides.

	Dorsal surface is slimy
<b>2.Karbura:</b> Ayata like Varmi fish (Sarpakara) Slight elevation and depression are seen in the middle part Ventral surface is convex	<b>2.Pingala:</b> Reddish or reddish brown in color Round in shape Locomotion is speedy
<b>3.Alagarda:</b> Hairy with wrinkles Big in size and round in shape Black colored mouth end	<b>3.Shankhamukhi:</b> Color – Blackish red like that of liver Sucking and movement is fast Long and sharp suckers
<b>4.Indrayudha:</b> Body has different colors like rainbow Number of linings on the body	<b>4.Mooshika:</b> Color and Shape like that of rat Emits foul smell from the body
<b>5.Samudrika:</b> Blackish yellow in color resembling flowers	<b>5.Pundareekamukhi:</b> Color like Mudga Its mouth resembles the full blown lotus and lillies.
<b>6.Gochandana:</b> Narrow mouth Marked by bifurcating lines at lower end like the scrotal sac of a bull	<b>6.Savarika:</b> Marked with impressions like glossy lotus leaves Length – 18 Angula Indicated to be used only in animals

According to Acharya Vagbhata, the Jalauka has been classified according to their sex characters i.e. Sthree Jalauka & Purusha Jalauka.<sup>[7]</sup>

- **Purusha jalauka** are having hard skin, big head, Ardachandrakara (Semi lunar shape) with large anterior portion, used in highly vitiated Dosha avastha and chronic disease conditions.
- **Sthree jalauka** are delicate, having thin skin, small sized head, large lower body, can be used in Alpa dosha avastha and acute disorders.

According to Acharya Harita, the Jalauka has been classified into four types<sup>[8]</sup>

1. Indrayudha
2. Rohini
3. Kaalika
4. Dhoomra

Among these, except Kaalika, all can be used for the purpose of Jalaukavacharana in different conditions.

**Availability of jalauka**

In Acharya Sushruta's period, Nirvisha Jalauka were available in Yavana (Turkasthan, currently taken as Turkey), Pandya (Southern region of the country) and Sahya (hill station near bank of Narmada river) and Poutana (Mathura).<sup>[9]</sup>

**Length of jalauka**

The maximum length of Jalauka is 18 Angula and can be used only for bloodletting in animals like horse, elephant etc. For human beings 4, 5 and 6 Angula pramana Jalauka is ideal.<sup>[10]</sup>

**Gunas of jalauka<sup>[11]</sup>**

Guna – Sheeta, Snigdha, Shlakshna, Madhura

Action on Dosha – Pittahara

**Area of doshanirharana by jalaukavacharana**

Jalauka removes the Dosha from one Hasta pramana area of the bite site.<sup>[12]</sup>

**Amount of blood sucked**

There are different opinions regarding the amount of blood sucked by one Jalauka. Some authors opine that, it is 6 – 10 ml<sup>[13]</sup> whereas some opines that, it is 6-9 ml.<sup>[14]</sup>

**Indications for jalaukavacharana**

- Raktamokshana by Jalauka is especially indicated to king, rich people, children, old aged, weak, women, fearful and delicate people.<sup>[15]</sup>
- Pathological Indications for Jalaukavacharana: Gulma, Arsha, Vidradhi, Kushta, Vatarakta, Galaroga, Netraroga, Vishadamsta, Visarpa<sup>[16]</sup>
- Ayurvedic research works have been conducted to evaluate the effect of Jalaukavacharana in the management of different conditions like - Vicharchika, Khalitya, Indralupta, Sandhivata, Vatarakta, Siraja granthi, Shlipada, Visarpa, Thrombosed piles, Diabetic foot ulcer, Keloids.

**Contraindications for jalaukavacharana**

Raktamokshana is contraindicated in too cold and too hot seasons, on empty stomach, during fainting or drowsy state, when frightened, intoxicated or exhausted, or when one has the urge

of defecation and micturition. Also never attempt the procedure before or after too much Swedana.<sup>[17]</sup>

### Time of collection

Sharat Rtu is considered as the best time for collection of Jalauka.<sup>[18]</sup>

### Collection and Preservation of jalauka

**Collection:** Jalauka should be caught from water sources containing clean water, where Padma, Utpala, Kumuda, etc. grows. It can be caught with piece of wet leather by applying fresh meat of animals. When Jalaukas get stuck, it should be taken out from water and preserved.

**Preservation:** After collecting, they should be kept in a new wide earthen pot. Water from pond or lake having lotus, lilly etc. should be filled into the pot. For the base of the pot, leaves of aquatic plants can be kept, which will serve as bed for jalauka. For feeding, dried aquatic animal meat or stalks of aquatic plants can be given. Shrngataka, Kasheruka, Shaluka, Shaivala, Mrinala, Vallura, Mrtsna, Pushkara beeja churna and sweet cold clean water can also be provided as diet.<sup>[19]</sup> Every 3<sup>rd</sup> day, water in the pot has to be changed and every 7<sup>th</sup> day<sup>[20]</sup> or 5<sup>th</sup> day<sup>[21]</sup> pot itself have to be changed.

### Jalaukavacharana vidhi<sup>[22]</sup>

#### 1. Purvakarma

##### (i) Preparation of the Patient

The patient fit for Raktamokshana and who is suffering with Raktamokshana sadhya vyadhi should be selected. The part of the body where Jalaukavacharana has to be done should be rubbed with mud or cowdung to make the area rough so that Jalauka can bite easily.

##### (ii) Preparation of jalauka

Nirvisha Jalauka should be selected and kept in Sarshapa or Haridra jala for 1 Muhurtha, inorder to make the Jalauka active and free it from exhaustion.

### Collection of materials

The materials like Paatra, Jala, Saindhava, Madhu, Ghrta, Paya, Pichu, Plota, Parikarmi etc. should be kept ready.

#### 2. Pradhana karma

The patient is made to either sit or lie in the supine position. The area that is made rough is allowed to bite by Jalauka. If Jalauka doesnot suck by itself, a drop of milk or blood is put on

the surface. After that also, if it does not bite, a small prick is made over the area using Shashtra. Even after all these, if it does not suck, the Jalauka itself is to be changed and another Jalauka should be taken.

When the Jalauka starts sucking, it will be understood by the hoof like appearance of mouth and raising of its shoulder region. Then a wet piece of white cloth is used to cover the body of the leech, sparing the head portion.

Jalauka sucks only Dushta rakta from the site, like Hamsa drinks only pure milk even if it is mixed with water.<sup>[23]</sup> If the patient gets itching and pain at the site of Jalaukavacharana, it should be understood that the Jalauka started sucking pure blood.

If the Jalauka does not leave by itself, it should be removed by sprinkling Saindhava churna at its mouth.

### **3. Paschat karma**

Paschat karma for patient: Considering the status of the patient after Jalaukavacharana, management should be done:

Samyakyoga - Shatadhouta Ghrta Abhyanga or Pichudharana should be done.

Hinayoga - Avaghattana with Madhu should be done

Atiyoga - Sheetala Jala Parisheka, Pradeha and Bandhana should be done.

Mithyayoga – Kashaya, Madhura, Sheeta, Ghrta Lepana should be done

### **Pathya-apathya after raktavisravana**

Pathya – Laghu, Deepaniya, Hitakaaraka dravya<sup>[24]</sup>

Apathya - Vyayama, Maithuna, Sheetasnana, Krodha, Divaswapna, Shoka, Ajeerna, Dravya having Kshara-Amla-Katu rasa.<sup>[25]</sup>

### **Paschat karma for Jalauka**

As the Jalauka stops Sucking and Gets detached by itself or by force, a paste prepared of Tandula kandana is to be applied over its body. Then Taila and Saindhava lavana is mixed and smeared on mouth. With the help of left thumb and index finger, tail end of the Jalauka is held and body is squeezed with fingers of right hand, towards the mouth. This is to induce vomiting of the sucked blood. After Vamana, Jalauka is kept in a vessel containing water and should be observed. If Jalauka is active and moves fast in the water, proper vomiting is suggested. If it is lethargic and not moving, once again it should be subjected to vomiting.

If it does not expel the sucked blood properly, the disease called Indramada will occur.

After proper vomiting, Jalauka is kept in the earthen pot containing water. The leeches once used should not be used again for next 7 days.<sup>[26]</sup>

## DISCUSSION

Raktamokshana is a treatment modality included in the line of management of many diseases. Raktamokshana purifies Rakta and in turn the other Dosha associated in the disease process and thus alleviates the disease faster than only Shamana medications. Also, it is told in the Samhitas that one who undergoes Raktamokshana periodically, doesn't suffer with Twakroga, Granthi, Shopha etc. which is explaining the preventive aspect of Raktamokshana. While describing the various techniques of Raktamokshana, Jalaukavacharana is best indicated in those having delicate body like Baala, Sukumara, etc and other gentle sophisticated personalities can be treated under safe and secured zone. It is regarded as Paramasukumaropaya.<sup>[27]</sup> Leeches not only help in expelling the vitiated blood but at the same time, they secrete a number of biologically active substances like Bdelins, Eglins, Carboxypeptidase A inhibitors, Histamine like substances which have anti inflammatory action and vasodilatory action, by virtue of which reduction in the inflammatory lesions of the disease occurs.

## CONCLUSION

Among the various tools for Raktamokshana, Jalaukavacharana is considered as the ideal method to expel out the vitiated blood. Jalaukavacharana has immense potential to treat a wide range of challenging medical and surgical disease conditions. It is effective, safe, economically cheaper, convenient, easy, scientific and having reduced side effects. It has the enormous ability to treat conditions of inflammatory, ischaemic and infectious diseases. Jalaukavacharana therapy is very useful in many acute and chronic disorders.

## REFERENCES

1. Acharya Susruta. Susruta Samhita with Nibandhasangraha of Dalhanacharya & Nyayachandrikapanjika of Gayadasacharya. Edited by Vaidya Yadavji Trikamji Acharya. Sutrasthana, Jalaukavacharaniya Adhyaya, Varanasi: Chaukamba Surbharati Prakashan, 2003; 58, 822: 13 – 24.
2. Taranathatarkavachaspati Bhattacharya. Vachaspatyam. Varanasi: Choukhamba Sanskrit series Office, 4, 3078: 3442.

3. Raja Radhakant Dev virachita Shabdakalpadruma. Delhi: Nag Publishers, 1987; 1: 565-926.
4. Acharya Susruta. Susruta Samhita with Nibandhasangraha of Dalhanacharya & Nyayachandrikapanjika of Gayadasacharya. Edited by Vaidya Yadavji Trikamji Acharya, Varanasi: Chaukamba Surbharati Prakashan; Reprint Sutrasthana, Jalaukavacharaniya Adhyaya, 2003; 56, 822: 13 - 10.
5. Acharya Susruta. Susruta Samhita with Nibandhasangraha of Dalhanacharya & Nyayachandrikapanjika of Gayadasacharya. Edited by Vaidya Yadavji Trikamji Acharya, Varanasi: Chaukamba Surbharati Prakashan Sutrasthana, Jalaukavacharaniya Adhyaya, 2003; 56, 822: 13 - 10.
6. Acharya Susruta. Susruta Samhita with Nibandhasangraha of Dalhanacharya & Nyayachandrikapanjika of Gayadasacharya. Edited by Vaidya Yadavji Trikamji Acharya, Varanasi: Chaukamba Surbharati Prakashan Sutrasthana, Jalaukavacharaniya Adhyaya, 2003; 56, 822: 13/10.
7. Acharya Vriddha Vagbhata. Astanga sangraha with Sasilekha Sanskrit Commentary. Edited by Sharma S, Mitra J. Varanasi: Choukamba Sanskrit Series Office; 4th Edition. Sutrasthana, 244, 965: 35 - 4.
8. Pandey J. Harita Samhita with Nirmala Hindi Commentary. Varanasi: Chaukhamba Bharati Academy; First edition, Chaturthasthana, 2010; 6: 1-5. P.512-513, 544.
9. Acharya Susruta. Susruta Samhita with Nibandhasangraha of Dalhanacharya & Nyayachandrikapanjika of Gayadasacharya. Edited by Vaidya Yadavji Trikamji Acharya. Varanasi: Chaukamba Surbharati Prakashan, Sutrasthana, Jalaukavacharaniya Adhyaya, 2003; 57, 822: 13 - 13.
10. Acharya Vriddha Vagbhata. Astanga sangraha with Sasilekha Sanskrit Commentary. Edited by Sharma S, Mitra J. Varanasi: Choukamba Sanskrit Series Office; 4th Edition. Sutrasthana, 244, 965: 35 - 4.
11. Dalhana. Nibandha Sangraha Vyakhya on Sushruta Samhita. Vaidya Jadavji Trikamji Acharya (edited). Varanasi: Chaukhamba Surbharati Prakashan; Jalaukavacharaniya Adhyaya, 2003; 55, 822: 13 - 6.
12. Sarngdhara. Sarngdhara Samhita. Edited by Murthy S. Varanasi: Choukhamba Orientalia; Uttarakhanda, 1997; 3: 255, 335: 12 - 26.
13. Rao M R. Shalyatantra Vignanam (Surgery in Ayurveda). Vijayawada: M Madhava, Susruta Opticals, 3, 1: 124 – 872.



14. Dvivedi R. Saushruti. Varanasi: Choukhamba Amarabharati Prakashan, 1988; 8, 7: 216 – 667.
15. Acharya Susruta. Susruta Samhita with Nibandhasangraha of Dalhanacharya & Nyayachandrikapanjika of Gayadasacharya. Edited by Vaidya Yadavji Trikamji Acharya. Varanasi: Choukhamba Surbharati Prakashan, 2003; 55: 822.
16. Acharya Vagbhata. Astangahridaya with Sarvangasundariteeka Ayurveda rasayanateeka, Edited by Harisadashivashastri. Varanasi: Choukhamba Orientalia. Sutrasthana, Shastravidhi Adhyaya, 323, 956: 26 - 42.
17. Sarngdhara. Sarngdhara Samhita. Edited by Murthy S. Varanasi: Choukhamba Orientalia; Uttarakhanda, 1997; 12, 27-29. 256, 335.
18. Acharya Susruta. Susruta Samhita with Nibandhasangraha of Dalhanacharya & Nyayachandrikapanjika of Gayadasacharya. Edited by Vaidya Yadavji Trikamji Acharya, Varanasi: Choukhamba Surbharati Prakashan; Sutrasthana, Jalaukavacharaniya Adhyaya, 2003; 57, 822: 13 - 16.
19. Acharya Vriddha Vagbhata. Astanga sangraha with Sasilekha Sanskrit Commentary. Edited by Sharma S, Mitra J. Varanasi: Choukhamba Sanskrit Series Office; Sutrasthana, 4, 244 - 965: 35 - 4.
20. Acharya Susruta. Susruta Samhita with Nibandhasangraha of Dalhanacharya & Nyayachandrikapanjika of Gayadasacharya. Edited by Vaidya Yadavji Trikamji Acharya, Varanasi: Choukhamba Surbharati Prakashan; Reprint Sutrasthana, Jalaukavacharaniya Adhyaya, 2003; 57, 822: 13 - 17.
21. Acharya Vriddha Vagbhata. Astanga Sangraha with Sasilekha Sanskrit Commentary. Edited by Sharma S, Mitra J. Varanasi: Choukhamba Sanskrit Series Office; Sutrasthana, 4, 244, 965: 35 - 4.
22. Acharya Susruta. Susruta Samhita with Nibandhasangraha of Dalhanacharya & Nyayachandrikapanjika of Gayadasacharya. Edited by Vaidya Yadavji Trikamji Acharya. Varanasi: Choukhamba Surbharati Prakashan; Sutrasthana, Jalaukavacharaniya Adhyaya, 2003; 56, 822: 13 - 10.
23. Acharya Vriddha Vagbhata. Astanga Sangraha with Sasilekha Sanskrit Commentary. Edited by Sharma S, Mitra J. Varanasi: Choukhamba Sanskrit Series Office; Sutrasthana, 4: 244, 965: 35 - 4.
24. Acharya Vriddha Vagbhata. Astanga Sangraha with Sasilekha Sanskrit Commentary. Edited by Sharma S, Mitra J. Varanasi: Choukhamba Sanskrit Series Office; 4th Edition. Sutrasthana, 4, 36, 249, 965: 20-21.

25. Babu M S. Yogaratnakara. Varanasi: Chowkhamba Sanskrit Series Office, 2005; 222, 698: 7-9.
26. Acharya Susruta. Susruta Samhita with Nibandhasangraha of Dalhanacharya & Nyayachandrikapanjika of Gayadasacharya. Edited by Vaidya Yadavji Trikamji Acharya, Varanasi: Chaukamba Surbharati Prakashan; Sutrasthana, Jalaukavacharaniya Adhyaya, 2003; 58, 822: 13 - 23.
27. Acharya Susruta. Susruta Samhita with Nibandhasangraha of Dalhanacharya & Nyayachandrikapanjika of Gayadasacharya. Edited by Vaidya Yadavji Trikamji Acharya, Varanasi: Chaukamba Surbharati Prakashan; Sutrasthana, Jalaukavacharaniya Adhyaya, 2003; 55, 822: 13 - 3.