

## A CONCEPTUAL STUDY OF JALAUKAVACHARANA

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**ABSTRACT**

The basic Ayurvedic treatment is based on two principles viz. shodhan chikitsa (elimination Therapy) and Shaman chikitsa (internal medicine). Shodhan Chikitsa deals with five purificatory procedures popularly known as panchakarma. Acharya Susruta included Raktamokshana in Panchakarma and described it as the best procedure because it eliminates all three vitiated Doshas viz. vata, Pitta & Kapha. Jalaukavacharana is a type of Raktamokshana where leeches are used for bloodletting. This is considered as the most effective and most unique method of Raktamokshana as vitiated Doshas are removed from the body without using any cutting instruments, so, Raktamokshana by means of 'Leech' comes under Ashastra category.

**INTRODUCTION**

The first description of Jalaukavacharana (leech therapy) is available in Sushruta Samhita written in 800 B.C. Recently, many pieces of research have proved that leech saliva has a variety of bioactive compounds including anti-thrombin (Hirudin, bufrudin), antiplatelet (calin), factor Xa inhibitors, antibacterial and other property. Leech therapy or Jalaukavacharan is an ancient Ayurvedic bloodletting technique that has the great potential to manage many inflammatory, ischemic, and infectious diseases. Leech's saliva contains many biologically and pharmacologically active compounds that exert anticoagulant, antiplatelet, anti-inflammatory, and anti-edema effects in the host's body. Arthritis, venous congestion, vascular diseases, abscess, ischemic heart disease, etc. can be successfully managed by leech therapy.

**Jalauka definition**Nirukti of Jalayuka – (definition of leech)<sup>[1]</sup>

Jala – water

Aayu – Life

As they are accustomed to water, they are called Jalayuka.

**Leech modern view**

Phylum – Annelida

Class – Hirudinea

Scientific name – Hirudo medicinalis

Habitat – Water

**Leech types****Types of leeches: 12 types<sup>[2]</sup>**

6 Poisonous – Krishna, Karbura, Alagardha, Indradha, Samudrika, Gochandana

6 Non Poisonous – Kapila, Pingala, Sankhamuki, Mooshika, Pundareekamuki, Savarika

**INDICATIONS****Indications for Leech Therapy**

Blood vitiated with pitta dosha children, old aged, frightful, debilitated, women and person with tender constitution,

Diabetic ulcers

Varicose veins

Sciatica

Vatarakta

Acne

Chronic skin conditions like eczema, psoriasis.

Herpes

Poison

Abscess

Tumors of abdomen (Gulma)

Haemorrhoids

Diseases of neck and eyes

Therapeutic actions

Therapeutic Action of Jalauka Therapy:

Anti inflammatory

Analgesic (reduces pain)  
Increases blood circulation  
Thromolytic (dissolves blood clot)  
Antimicrobial activity

### Procedure of Jalaukavacharana

#### 1. Purvakarma

- Collection and preservation of leeches,
- Examination of patient,
- Shodhana of leech,
- Preparation of patient

#### 2. Pradhana Karma

Patient for Jalaukaavacharan should be in sitting posture or lying down posture. Then the leech should be applied by Haridra and Sarsapa kalpa and put into the pot having clear water for some time to know that the leech is free from Mada. Then that leech is applied to the affected part of patient. If in the affected part leech doesn't hold or suck, then either milk drop should be applied or a small scratch should be made so as to drain a little drop of blood. If leech doesn't suck by above methods then another leech should be used.

As soon as leech starts sucking the blood, a white cloth or gauze piece should be covered on it, leaving the facial portion. Continuously pour the water drop by drop to keep the leech very cold. The middle portion of leech will be swollen as soon as it starts sucking the blood, it may be noted here that it sucks only impure blood first. If the patient notices pricking pain and itching at the time of sucking pure blood, then it should be removed by pouring Saindhava Lavana at its mouth.

#### 3. Paschata Karma

It consists of two main things,

- Jalauka Upachara
- Atura Upachara

##### a) Jalauka Upachara<sup>[3]</sup>

As soon as Jalauka is removed from patients affected part, taila mixed with Saindhava Lavana should be poured on its mouth and on its body.

With the help of fore finger and thumb of left hand, the tail end of Jalauka should be picked up and with right hand fore finger and thumb it should be squeezed towards the head. By this it will vomit the sucked blood. Then put the Jalauka in a vessel containing pure water. When the Jalauka is moving inside the vessel, it should be noted whether it has vomited all the blood it has sucked. If it is lethargic (Madayukta) it should be presumed that it has not yet vomited properly.

##### b) Atura Upachara<sup>[4]</sup>

When the Jalauka is going to suck the blood of an individual, because of the property of an anti-coagulate Hirudin, the blood will not clot and thereby it allow sucked blood to get in to the alimentary canal of the Jalauka easily.

The Vaidya should find out the signs and symptoms of proper bloodletting. As soon as the Leech is removed from the body, Shataadhouta Ghrita should be applied on the wound or else Madhu should be applied or Pichu dipped in Shataadhouta Ghrita should be kept on it. Cold application should be made on the wound and bandage should be applied and tied properly or after Jalauka detached from the body the wound should be cleaned with Kashaya or any one of the Taila like Jatyadi Taila or Padmkadi Taila may be applied.

#### Points to remember for Jalauka application<sup>[5]</sup>

- Local Snehana and Swedana are needed before Jalauka application.
- Jalauka should be applied in Pratahakala (morning hours). Because in afternoon there will be Pitta Vriddhi and in night Vata Prakopa will be there, so circulation will be fast and there is chance of AtiRakta Sravana.
- Avoid applying over Sira, Stana, Shishna etc. delicate organs.
- Up to 2 years use of 1 Jalauka and for rest 6-10 Jalaukas can be used.

#### Retaining leech after therapy<sup>[6]</sup>

Leech is made to vomit the sucked blood out. It is sprinkled over with rice flour, so it's held firmly, with left hand at its tail end and with right thumb and index its body kneaded slowly in downward direction to vomit the sucked blood. To assess if the vomiting is complete, keep the leech in pot of water, if leech movement is slow it indicates incomplete vomiting and if it move quickly it ensures vomiting is complete. It is retained in fresh water.

#### Unsuitable leeches

##### Leeches not suitable for therapy

According to Acharya Sushrutha, leeches which are big in their middle (abdomen), ugly appearance, thick, slow in their movements, which do not bite, sucks little quantity of blood and which are poisonous.

Also leeches which have not vomited blood completely, when they are applied frequently and are inactive in water should be rejected.

#### Amount of blood sucked by leech

5-15 ml of blood.

#### Complications, treatment

##### Complications due to use of poisonous leech

Irritation, itching, bleeding, rashes, fever.

##### Treatment

'Mahagrutha' can be applied internally and externally.

#### DISCUSSION

Wherever there is contraindication of Shashtra karma, Anushastras like jaluka can be used hiruda medicinalis (Nirvisha Jalauka) is mainly used in human beings.

Various modes of bloodletting have been devised according to nature of disease, the patient and the predominance of Doshas. Jalauka are mainly used in Pitta Dosha Vikriti because Jalauka live in cold and fresh water and are Madhura Rasa Yukta, so it is applicable for Pitta Prakriti individual.

How the hansa bird separates milk from water and drinks only milk, likewise Jalaukas sucks impure blood first then pure blood.

Shringa, Jalauka, Prachchhna, Alabu are having localised action, whereas Siravedha has generalised. This Jalauka can be used in many Raktaja disorders by applying it on affected area locally. Not only the hirudin, but also several other enzymes like hirudin, bdellin, egilin, hementin, collagenase, apyrase, decrosin, hayluronidase and orgelasel etc. it is also having action of vasodilation and anaesthetic.

## CONCLUSION

- Jalaukavacharana is adopted mainly in Pitta Dosha predominant diseases.
- Jalaukavacharana is one of the best Anushastra Chikitsa used mainly in Rakta Pradoshaja Vyadhis.
- Though the action is localised, but it affects whole body by releasing many factors into blood.
- Jalaukavacharana is safe as it can be used in communicable diseases due to presence of specific factors in it.
- Jalaukavacharana is less consuming cost effective and easily adopted for patients.
- Leech is one of the most beneficial and delicate treatments. It is very cheap and short procedure without obstructing patient's daily routine.
- Leech application is the best one because it's delicate easily applicable, easily available, quick reliever and purificatory nature.
- Pre-surgery precautions like Anaesthesia, antibiotics are not necessary and also patient can leave the hospital in no time.
- Patient does not ever feel that a major surgery is done with him.
- Leech is a sort of boon in rural areas. It is a best Para surgical and cosmetic instrument.
- In short indigenous Leech in spite of its meagre form is much famous in medical field.

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