



APPLICABILITY OF JALOUKA IN SHALYAJA VYADHI

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ABSTRACT:

The basic Ayurvedic treatment is based on two principles. 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 -Vata, Pitta & Kapha. Jalaukavacharana is a type of Raktamokshana where Jalauka are used for Raktamokshana (bloodletting). This is considered as the unique method of Raktamokshana as vitiated Doshas are removed from the body without using any sharp instruments, so, Raktamokshana by means of 'Jalauka' comes under Ashastra category. Rakta vitiated by Vata Pitta Kapha should be removed from the body by using Sringa, Jalouka, Alabu respectively. Method of removing blood from the body using Jalouka is considered as the easy and convenient method so it is mainly indicated in Old, fearful, women weak persons, delicate persons.

Keywords: Jalouka, Jaloukacharana, Leech therapy, Shalyajavyadhi

INTRODUCTION

The first description of Jalaukavacharana (leech therapy) is available in Sushruta Samhita, Sutrasthana (800 B C). Jaloukacharana or Medicinal leech therapy is an old technique of blood letting and is mainly indicated in various diseases such as Dushtavrana, Vranashopha, Mukhadoshika, Sirajagranthi, Arsha, Khalitya, Indralupta Visarpa¹.

Recently, many researchers have proved that leech saliva has a variety of bioactive compounds including anti-thrombin (Hirudin, bufrudin), antiplatelet (calin), factor Xa inhibitors, antibacterial and other property².

Leech's saliva contains many biologically and pharmacologically active compounds that exert anticoagulant, antiplatelet, anti-inflammatory, and anti-edema effects in the host's body³, Nirukti of Jalayuka- Jala-water, Aayu- Life A Creature, whose life is water, a creature, whose habitat and life is water is called Jalauka.⁴

Leech modern view

Phylum- Annelida

Class- Hirudine

Scientific name - Hirudo medicinalis

Habitat-Water

Types of Jalouka: 12 types⁵

- 6 Savisha - Krishna, Karbura, Alagardha, Indradudha, Samudrika, Gochandana⁶
- 6 Nirvisha - Kapila, Pingala, Sankhamuki, Mooshika, Pundareekamuki, Savarika⁷

Precaution during Jalaukacharana

BT and CT, HB%, HIV I II, Hbsag, HCV of the patient should be normal.

Points to remember for Jalaukaacharana⁸

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

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Procedure of Jalaukavacharana

A) Purvakarma

Before the application of Jalauka on target site, it should be dipped in Sarshaparajani kalkodaka and kept in fresh water for one muhurtha (approximately 45 minutes). The patient's skin is cleaned thoroughly with water⁹.

B) Pradhan karma

Patient for Jalaukavacharana should be in sitting posture or lying down posture. Then that Jalauka is applied to the affected part of patient. Jalouka should be applied on desired site and its body to be covered with gauze dipped in cold water. If Jalauka refuses to suck, small prick to be made at the desired site by using sterile needle so that drop of blood is produced and leech attaches to the site quickly.

The Jalauka when start sucking from the affected part, its mouth assumes the shape of horse shoe and raised and arched position of their necks after they had attached. While sucking is started the leeches should be constantly covered with gauze piece dipped in cold water.

If sensation of itching and pain at the site of application than it has to be assumed that the Jalauka is sucking pure blood (Rakta), when it begins to suck pure blood (Rakta), it should be removed if it does not leave off easily then powder of Saindhava (Salt) or Haridra (Turmeric Powder) should be sprinkled over its mouth¹⁰.

C) Paschat karma

After detachment of Jalouka, bleeding from wound (Jalauka site) is checked by application of tight bandage along with application of Shatadhauta ghrita¹¹. For the emesis of Jalouka Haridra choorna to be used. When we pour Haridra choorna on the mouth of leech then leech vomit all sucked blood (Rakta) so that we can again use same leech in same patient in next sitting. After 7 days¹².

Constituents of Leech saliva and Probable mode of action of Jalaukavacharana¹³

Jalauka lives in cold places and is of Madhur rasa. So it is useful in vitiated Pitta and Rakta Vyadhi (Disorders). The use of Leech for medicinal purposes is due to the chemical contents present in Leech saliva.

The saliva of Leech contains chemicals which act as anaesthetic, which makes the bite of Leech painless to the host, anti-coagulant and anti-inflammatory, vasodilators which increase the blood flow to the feeding areas by causing vasodilatation and enhance wound healing, promotes circulation and have chemical substance which cause increase absorption of fluid in body. Jalauka sucks impure blood from capillaries of affected site and prevents oedema, inflammation, promotes circulation and helps in healing.

Saliva of Leech contains following bioactive substances¹⁴

(1) **Hirudin:** It has anti-thrombotic activity and inhibits blood coagulation. This improves blood flow to compromised tissue areas and prevent blockage in blood vessels. So Leech Therapy is useful in prevention and treatment of thromboembolic diseases like angina pectoris, atherosclerosis.

(2) **Calin:** It inhibits blood coagulation by blocking the binding of von Willebrand factor to collagen. It inhibits collagen mediated platelet aggregation and is responsible of slow cleansing of wound by maintaining secondary bleeding for some hours.

(3) **Destabilise:** Monomerizing activity. It dissolves fibrin and has thrombolytic effect. It completely blocks the spontaneous aggregation of human platelet.

(4) **Hyaluronidase:** It is a protein enzyme. It facilitates degradation of connective tissues around the bite site and acts to clear the path for active and healing substances to penetrate.

Applicability of Jalauka in Shalyajavyadhi

1) Dushvrana (Non Healing Ulcer)

Dushta vraneshu kartavyamurdhva aadascha shodhanam visoshanam tatha aaharah shonitasya cha mokshanam¹⁵

Dushta Vrana as a severe wound with characteristics like an irregular opening, intense pain, and extensive discharge, emitting a foul smell. The condition is marked by severe, burning pain and an unpleasant appearance¹⁶. Acharya Sushruta has mentioned Raktamokshana in Dushta Vrana Leech therapy, practiced by our Acharyas for centuries, is now gaining significant recognition due to its ability to address venous insufficiency, restore venous outflows, manage pain, and promote wound healing in both infected and non-infected chronic wounds.

2) Sirajagranthi (Varicose vein)

Shira Sankocha, Shira Vakrata, Shira utsedha and Vishoshana are the clinical characteristics of Sirajagranthi. Features are beneficial in associated Sirajagranthi with varicose veins. Varicose veins occur due to vitiation of Vata and Pitta dosha, which results in vitiation of Rakta dhatu and Sthansamshraya in Raktavaha Srotas, which triggers signs and symptoms of Sirajagranthi. The secretion of salivary glands of medicinal leech includes more than one hundred bioactive substances which are responsible for performing the desired medical effect¹⁷.

3) Arsha (Thrombosed haemorrhoid)

Avartthamana uchrana kathinebyo haredrasruk Arshobhyo Jalaja shastra suchi karchaih punah punah¹⁸ A thrombosed hemorrhoid is a variety of external haemorrhoid where a clot is formed in one or more veins situated in the anal skin resulting in painful swelling in the anal tissues. It becomes an emergency condition when the pile mass gets strangulated. Jalaukavacharana is known to be effective in thrombosed hemorrhoid as it relieves venous pooling of blood in that area by dissolving the clotted blood¹⁹.

4) Vranashopha (cellulitis)

Aadhou vimlapanam kuryat dviteeyam avasechanm²⁰. Avasechanam jaloukadibhi raktavisravanam (Dalhana)²¹. Cellulitis is a spreading inflammation of subcutaneous tissue and fascial planes. Infection may follow a small scratch or wound or incision or insect/snake/scorpion bite. Common in face, lower limbs, upper limb, scrotum wherein subcutaneous tissue is lax²². Cellulitis is associated with Vranashopha in Ayurveda. Jaloukacharana in the treatment of Vranashopha gives tremendous relief from Vedana, Daaha, Shopha.

5) Khalitya²³ (Baldness)

Khalitya is Tridoshaja vyadhi - Vata, Pitta, Kapha with Rakta Dosha. In Khalitya, hair fall occurs and new hair does not appear that leads to baldness. All Doshas are vitiated but have predominance of Pitta and Rakta Dosha mainly. Application of leech is a method where impure blood is removed from body which balances Pitta, Rakta, Vata Dosha and opens the blocked hair follicle which helps in growing new hair follicle and hair.

6) Mukhadoshika²⁴ (Acne Vulgaris)

Mukhadoshika is described as one among the 44 Kshudraroga in Sushruta Samhita. It is Kaphavata-raktapradanavyadhi characterised by Shalmalikantakavat pidaka. Ghana, Saruja and Medogarbhapudaka are present in the Mukhapradesha of young aged people. Similar features are found in the disease, Acne vulgaris and hence Mukhadoshika can be correlated to Acne vulgaris. Raktamokshana is one of the therapeutic interventions explained as the line of management of Kshudra roga in general. Raktamokshana in the form of Jaloukacharana as a shodhanachikitsa as it is a Raktapradoshajanyaroga.

7) Visarpa²⁵ (Herpes zoster)

Visarpa is an acute condition with quick spreading involving mainly Tvaka, Rakta, Mamsa due to vitiation of all three doshas. As the basic nature of the disease is Rakta and Pitta predominant, Jaloukacharana in the form of Raktamokshana helps in relieving the condition.

8) Keloid²⁶

Keloid is a condition of proliferation of fibroblast, collagen fibrils and immature blood vessel usually on a pre-existing scar. It has claw-like processes which is smooth, pink and raised patch as well as unsightly, often tender to touch and always itching tendency. Leech therapy is beneficial in reduction of pain, tenderness, itching in the patients of Keloid. We can avoid the hazardous of prolonged use of Steroid drugs by using leech therapy.

9) Indralupta²⁷ (Alopecia areata)

Vitiated Pitta in association with vitiated vata causes the falling of hairs from the scalp. After that vitiated Rakta and Kapha dosha block the orifices of the hair follicles which restricts the growth of new hair, this Vata, Pitta, Kapha along with Rakta causative factors of Indralupta. Jaloukacharana removes the aavarana caused by Dosha further helps in growth of new hair follicles.

Discussion

Method of removing blood from the body using Jalouka is considered as the easy and convenient method. Blood vitiated by Vata Pitta Kapha should be removed from the body by using Sringa, Jalouka, Alabu respectively. Jalouka is ideal to remove blood vitiated by Pitta.

Jalouka are 12 types among them 6 are Savisha (Poisonous leech) and 6 are Nirvisha (non poisonous leech).

There are so many causes of chronic ulcer, some of them are recurrent infections, trauma, poor blood supply, hypoxia, loss of sensation. Leech therapy gaining significant recognition due to its ability to address venous insufficiency, restore venous outflows, manage pain, and promote wound healing.

Due to the qualities of its anticoagulant, vasodilator, thrombolytic, anti-inflammatory substances, accelerate the thrombolytic activity in the thrombosed haemorrhoids and thereby decongestion occurs.

Leech therapy is beneficial in reduction of pain, tenderness, itching, and swelling in the patients of Keloid.

Leech therapy in Cellulitis not only rapidly alleviates local inflammation, infection, edema, redness and temperature immediately but also prevents complication.

CONCLUSION²⁸

Jaloukacharana is adopted mainly in Pitta Dosha predominant diseases. Jaloukacharana 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.

Jaloukacharana is cost effective and easily adopted for patients.

Leech is one of the most beneficial and delicate treatments. It is a short procedure without obstructing patient's daily routine. Pre-surgery precautions like Anaesthesia, antibiotics are not necessary and also can be done on opd basis.

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