

## A CASE REPORT ON EFFECTIVE MANAGEMENT OF AURICULAR KELOID BY JALAUKAVACHARANA

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### ABSTRACT

According to literature of *Ayurveda* two basic types of *chikitsasutra* are described in our *brihatrayis*. Those types are *Shodhana* and *Shamana chikitsa*. the diseases are caused by vitiation of three *doshas as Vata, Pitta and Kapha*. It is said that a number of diseases which are otherwise incurable can easily and effectively be cured only by *Rakta mokshana* a method of treatment which act as a *shodhana* and *shaman chikitsa* both. *Rakta Mokshana* by *Jalouka*, is considered most unique method of bloodletting by which *doshas* are removed without any cutting instruments, and *shamana of prakupit pittarakta doshas* so it comes under *ashastra* type of *raktha mokshana*.

Keloid (key-loid) is the overgrowth of scar tissue caused by an excessive accumulation of plasma proteins in skin during healing process of tissues. Keloids are characterized by proliferation of immature fibroblasts and also immature blood vessels. Keloid has claw-like process which is lumpy smooth, pink or purple in colour and raised patch as well as unsightly, often tender to touch. Auricular keloids are common following ear piercing these lesions are highly produces cosmetically discomfort to the patient. Various types of treatments like surgical excision, laser therapy, radiation are available but not shows as much satisfactory results. The present paper is a case presentation which elaborates the mode of action of *jalaukavacharan* on auricular keloid.

**Keywords:** *Jalaukavacharan*, keloid, Leech, Leech Therapy

**INTRODUCTION:** The diseases are caused due to vitiated *Tridosha* (*Vata, Pitta and Kapha*). According to *Sushrutacharya*, *Rakta* is another *dosha* along with above *Tridosha*, and *Raktamokshana* is a type of *Panchakarma*. It is the process of elimination of vitiated *Dosha* that accumulate in the body. It is the Ayurvedic treatment of detoxification (*shodhana chikitsa*) [1]

It is made of two words-

*Rakta* = blood

*Mokshana* = to leave

*Siravedha* and *Jalaukavacharana* are types of *Raktamokshana*. These procedures are described in the management of all systemic and localized diseases including diseases of *Karna, Nasa, Mukha,*

*Netra and Shira*. *Jalaukavacharana* is bloodletting therapy, which removes vitiated *Doshas* (toxins) from body.

The word leech is derived from laece which means physician. *Jalauka* is derived from Sanskrit word due to their site of living and nutrition source is *Jala*. [3]

*Jalaukavacharana* is an effective blood purification therapy, in which carefully controlled removal of small quantity of blood is conducted to neutralize accumulated vitiated *Pitta* and *Rakta Dosha* of diseases. Hence diseases caused by *Pitta* and *Rakta Dosha* are also relieved.

There are two main types of *Raktamokshana*. [4]

Basically *Jalaukavacharana* comes under the *anushastra* type of *raktamokshana* that means without using a metal instrument.

Acharya Sushruta described *Yantra* in *Sutra Sthana* along with *Upyantra* and *Anushastra*. *Agni*, *Kshara* and *Raktamokshana* by *Jalauka* are described under *Upyantra* as well as *Anushashtra*. [4]

In *Shalya chikitsa*, the *Raktamokshana* is considered as the partial or complete treatment in itself. [1]

Leeches are segmented worms belong to the *phylum Annelida*. *Jalaukavacharana* is known as Leech Therapy and *Hirudo-Therapy*.

[2] Leech therapy is now used to treat poor venous drainage, relieve vascularly compromised flaps and salvage tissue. Leeches are used in pain syndromes of various origins. Leeches have also been used successfully to compensate venous congestion in replants of fingers, toes or nose.

[5] Keloid is a condition of proliferation of fibroblast, collagen fibrils and immature blood vessel usually on a pre-existing scar. Exact cause of it is unknown till now but it is more common in Negro population, females, family predisposition as well as increases incidence in tuberculosis patients. It has claw-like processes which is smooth, pink and raised patch as well as unsightly, often tender to touch and always itching tendency. [5]

#### **CASE REPORT:**

A lady patient of age 59 years visited in our OPD of *Shalakyatantra* of SMT Ayurved College, Dhamangaon, Nashik, Maharashtra on 4/10/18. Her complaint was pain and swelling on pinna of right Ear since 4 yrs. but now there is increase in symptoms since 4 months. Due to pain she had disturbed sleep. On examination tender on touch, dark reddish in colour with

claw-like structure on right ear pinna. patient had surgically excised it 2 times and in past she had also taken steroidal inj. at the site of keloid treated it like a keloid and planned *Jalauka* application in several settings. Its size was 30X20 mm.

Name of Patient- XYZ

Age/sex – 59 yrs/ female

OPD no – 47114

L/E-

- Reddish coloured claw like swelling at middle of Pinna of Right ear.
- Tenderness present at that site.
- Pain present at the site of swelling.
- Size of swelling -30X20mm.

S/H/O- Tubectomy before 19 yrs.

-Right ear keloid excision 2 times within last 2 years

K/C/O- HTN under regular treatment. (since 5 yrs)

After detailed history taking and clinical examination are suggestive of right auricular keloid O/E- Pulse- 81/min, B.P – 110/72 mm hg and other relevant blood investigations are within normal limit

#### **Method of *Jalaukavacharana* (Leech application):**

##### **MATERIALS:**

*Nirvish Jalauka*, surgical pair of Gloves, Bowls, Kidney tray, Gauze piece, Bandage, Turmeric powder (*Haridra churna*), disposable needle, wet cotton piece (to cover *Jalauka* during leech therapy).

##### ***Purva karma* (Pre-procedure preparation):**

1. *Jalauka* (Leeches) were placed in the water mixed with turmeric powder for two minutes so that leech became active.
2. The affected fingers and hand was cleaned with normal saline then dried up and rubbed with dry gauze piece.

3. After wearing the surgical gloves, *Jalauka* was held at its centre or nearer to the anterior sucker with the help of gauze piece.

4. patient was asked to lie on Supine position with head moved on left side.[6]

**Pradhan Karma (Procedure of leech application):**

1. Leeches were applied at the right ear pinna on keloid.

2. Leech bites the affected area spontaneously and sucked the blood.

3. The patient experienced the slight pricking sensation at the site of the bite.

4. Once leech started to suck the blood, its neck part looks elevated that indicates that sucking was well and in progress.

5. During sucking gradual distension were observed at its body centre and wavy movement / pulsation was visible throughout its body.

6. The body part was covered with a wet swab except his mouth to create a natural atmosphere and it was maintained throughout the process by pouring of some water on it.[6]

**Paschat karma (post procedure):**

1.Immediately after removal of leeches there was continuous oozing form the bite sites.

2. The local part was cleaned with betadine solution and then turmeric powder was applied and was bandaged tightly.

3. When *Jalauka* give up automatically, then it was kept in a kidney tray and tur-

meric powder was sprinkled on its mouth. *Jalauka* automatically vomit the ingested blood.

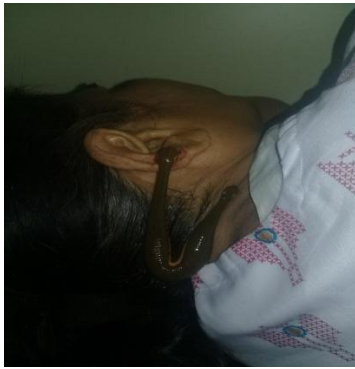
4. Finally leech was squeezed smoothly with right hand to remove all the remnant part of ingested blood from its body.

5. It is very important to remove all ingested blood otherwise leech [2]will die or get diseased as mentioned in classic. Then that used *Jalauka* were kept in clean vessel and clean water separately for next setting.

**FOLLOW-UP AND OUTCOMES:**

*Jalaukavacharan* (leech therapy) done for four times after every 5 day in this case till the completion of her treatment. In the first setting leech was applied keloid . Swelling was mildly reduced and size is also reduced. After five days leech was applied again. Assessment was done on fifth day. On local examination, swelling was reduced remarkably and dark reddish discoloration was reduced. We continue the leech application on tenth day as third setting , then on 15 day as fourth setting. It was noticed that in one setting approx 5-10 ml bloodletting was done by leech. On 10th day patient was free from pain, Itching and swelling was reduced markedly. On 15th day fourth setting of *Jalaukavacharan* was planned. Then the wound was also about to healed.Then After seven days follow up was done and all the figers were observed as normal without any complication.

**Photos-**



1<sup>st</sup> Setting



2<sup>nd</sup> Setting



3<sup>rd</sup> Setting



4<sup>th</sup> Setting



After 10 months



#### OBSERVATIONS AND RESULTS:

During this case study period it has been observed that pain starts decreasing after the first sitting of leech therapy and after the last follow-ups there is a significant decrease in symptoms including pain, and tenderness. Total four setting once in every 5 days was done. After first sitting of *Jalauka* application pain and swelling was reduced. After second setting the size was reduced. The patient was relieved from all symptoms within two weeks. After fourth setting all unwanted part was sloughed out without surgical debridement.

*Raktamokshan by Jalauka* is considered most unique method of bloodletting by which *doshas* are removed without any cutting instruments, so it comes under *ashastra* type of *raktha Mokshana*..

**DISCUSSION:** Leech saliva contains a number of different substances, including hirudin, calin, anaesthetic compounds and antihistamine vasodilators.

- Leech therapy increases blood flow within the affected tissue by virtue of different chemicals in the saliva of the leech like *hirudin*. *Hirudin* is a potent anticoagulant that inhibits the conversion of fibrinogen to fibrin which preventing blood from clotting. *Hirudin* works with vasodilator compounds to increase blood flow to an area; at the same time the anaesthetic compounds.
- It also contains histamin-like vasodilators, kallikrein, and tryptase inhibitors, various other proteinase inhibitors, and anesthetics. Leech therapy

could induce pain relief through antinociceptive effects and counter irritation.

- Histamine-like substances present in leech saliva which act as a vasodilator. By this way these substances that are present in leech saliva increase the microcirculation, decrease the inflammation.
- . Corboxypeptidase A inhibitor increases the inflow of blood at the bite site.
- Leech application has peripheral vasodilator effect due to presence of vasodilator constituent in the saliva which improves blood circulation and corrects ischemia.
- Leech application has anti-inflammatory action by Bdekins and Eglins present in the saliva.

In follow up till 10 months we didn't found the recurrence.

**CONCLUSION:** On the basis of the above case study we can conclude *that Raktamokshan by Jalaukavacharan* is beneficial in reduction of pain, tenderness, itching, and swelling in the patients of Keloid. And natural healing mechanism of tissues Hence, we can treat the keloid patient with Ayurvedic treatment by *Jalaukavacharan*. With the help of leech therapy we can improve the quality of life of the Keloid patients. We can avoid the hazards of prolong use of Steroid drugs by using leech therapy.

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