

## Effect of Leech Therapy (*Jalaukavacharana*) in an unknown Bite - A Case Study

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### Abstract

A case of unknown bite presenting with symptoms of local erythema, burning and swelling on left arm came to OPD which was treated by following the treatment protocol of *AcharyaSushruta*. As per the treatment protocol for bites described by *AcharyaSushruta* in *KalpaSthana*, *Jalaukavacharana* was done in the present case. After performing *Jalaukavacharana* by using four leeches in a single sitting it was found that there was marked reduction in all the symptoms instantly and the results sustained thereafter permanently.

### Keywords

*Bite, Jalaukavacharana, Leech*



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## INTRODUCTION

Skin is the largest organ of the body which can be affected from many diseases. It acts like mirror whenever there is a disease caused by metabolism and same way skin can be affected directly from external trauma or injury. In India, rural areas have many incidences of bites like snake bite, scorpion bite, rat bite, insect bite, flies bite etc. In urban area like Mumbai city, snake bite and scorpion bite incidences are quite rare but Insect and flies bite patients are found relatively few. *Acharya Sushruta* has stated symptoms and signs of various bites<sup>1</sup>. It has various types of pain like throbbing pain, burning pain etc. Vitiating *Pitta dosha* gives severe burning sensation which lasts beyond tolerance in such patients. The effect of local applications i.e. ointments and creams are far from satisfactory in acute stages. *Raktamokshana* (Blood letting) is *Shodhana* (Detoxification) procedure where it removes vitiated blood from the body<sup>2</sup>. When it is local and vitiated by *Pitta dosha* then *raktamokshana* is done by a special procedure called as *Jalaukavacharana* (Leech therapy).

## AIM

To study the effect of Leech therapy in Unknown bite

## OBJECTIVES

- 1) To study about unknown bite in detail.
- 2) To study about *Jalaukavacharana* in detail.
- 3) To evaluate the efficacy of *Jalaukavacharana* in Unknown bite.

## CASE REPORT

Without a clear patient history, diagnosis of any poisonous bite can be difficult since the initial effect may be limited to erythema, local pain, pruritus or edema. Wheals and urticaria are common initial signs and generally appear within a few minutes of the bite. Unfortunately, many dermatologic conditions also produce similar cutaneous signs and may confound the diagnosis.

A male patient of 59 years of age complaining of severe burning sensation, redness, swelling, itching and pain over left arm. He gave his history of onset as follows. He had planned to travel from Mumbai to Pune for some office work, so in the morning he took a bath, got dressed up and headed towards Pune by car. While travelling, he started feeling irritation and itching over his left arm which continued till he reaches his Pune office. He attended his official work and then he had a telephonic

conversation with a physician who is a RBI appointed allopathic consultant for bank employees. He advised him to use Burnol cream over the affected area. Local application of cream pacified the burning sensation which gave temporary relief for a while and soon after he started experiencing swelling, burning sensation and the erythema started spreading and it covered a large area on the arm. He finished all his duties in two days and returned to Mumbai and visited OPD with following signs – Erythema spreaded in 3 inch area, forming a circular patch above and below the left elbow with local swelling.

## MATERIAL USED FOR JALAUKACHARANA: OBSERVATION

**Table 1** Observation after *Jalaukavacharana*(Leech Therapy)

Sr no	Visit	No. of leeches applied	Total time taken by leeches	Observation on patient	Observation of leeches
1	First	4 (Figure no.1)	2 hours and 15 minutes	<ul style="list-style-type: none"> <li>Burning sensation and itching immediately stopped during leech therapy within 20 minutes.</li> <li>Pain started reducing after procedure</li> <li>Erythema started reducing after procedure</li> </ul>	<ul style="list-style-type: none"> <li>Removed blood was of bright red in colour. (Figure no.2)</li> <li>After leeches were made to vomit, all 4 leeches expired immediately.</li> </ul>

## DISCUSSION

In *Maharogaadhyaya* of *Sutra sthana*, *Charaka* mentioned four types of diseases i.e. Extrinsic factor (*Aagantuja*), *Vata*, *Pitta*,

*Jalauka*, *Haridra powder*, *ShuddhaSpatika powder*, Sterilized gauze pieces, Dressing pad, Cotton, Gloves, Disposable syringe, Kidney tray, Distilled water, Normal saline, Needle, Sterilized non-toothed forceps, Scissors, Container of sterile water ( for placingjalauka after procedure ) which will be labeled with patient's name with date.

## METHOD

The following treatment schedule was executed:

1) Patient had a single sitting of *Jalaukavacharana* on OPD basis. *Jalaukavacharana* was completed in a standard protocol as described by *AcharyaSushruta*.

*Kapha* & further he said that in etiological point of view, they are of two types only i.e. Exogenous (*Aagantuja*) and Innate (*Nija*). Exogenous is a disease caused by outer

factors like trauma or any bite where Innate is disequilibrium of *Vata, Pitta &Kapha* only<sup>3</sup>. Sometimes exogenous factors follow the innate disorder and the innate factors get associated with the exogenous disorder when it is developed. There one should start the treatment after knowing well the primary course & the secondary factor.<sup>4</sup>

Insect bite can be poisonous if symptoms and history of the onset narrated by the patient is same like described in *SushrutaSamhita*. In *Kalpasthanana* of *Sushruta Samhita*, it is written as follows: The seat of the bite seems as if on fire or being burnt with strong alkali and characterized by a red, yellow, white or vermilion (brilliant red) colour. The symptoms are rise in temperature, breaking and aching pain, burning sensation, horripilation ( a bristling of the hair of body part ), swelling, appearance of nodular glands and circular erythematous patches on skin<sup>5</sup>.The case of poisonous insect bite has to be treated like as of snake bite<sup>6</sup>. A skillful physician should open the veins around the seat of the bite and bleed the affected part<sup>7</sup>.

When the vitiated blood is deep seated and caused by *Pitta&Rakta* then *Jalaukavacharana* procedure is indicated. We performed the same in this case with the help of Leech therapy, the vitiated local

blood was expelled out & targeted action achieved ( Observation table no.1 ) which led to complete breakdown of the pathogenesis (Figure no.3). Hence there was no absolute need of any medications like Antibiotics & Painkillers. This case report provides the evidence that faster relief without medication can be possible through *Ayurveda*.



**Figure 1** leech application



**Figure 2** Removed blood from leeches



**Figure 3** After three weeks

## CONCLUSION

- Leech application is very effective in acute stage of unknown bite patients
- As a Standard Operative Procedure (SOP) of post procedure of Leech therapy, it is practiced that when leech completely sucks the vitiated blood & gets detached from the body of the patient then the emesis is induced in the Leech to save it from undesired effects. After completion of emesis, the leech becomes again active and remains alive but in present case, it is noticed that the Leeches died soon after performing the emesis.
- Vomited blood from leeches in such cases show characteristic features unlike normal withdrawn blood.

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