



## A Case Report - Effect Of *Saliparni Thailadhara* (*Pseudarthria Viscida* Linn) And *Dasanga Agada* In The Management Of *Vrischika Damsha* (Scorpion Sting).

Shanti R Nair<sup>1</sup>, Suvarna Meshram Akashdeep<sup>2</sup>

<sup>1</sup>\*PhD Research Scholar, Department of Agada Tantra, Parul Institute of Ayurved and Research, Parul university, Vadodara, Gujrat, India.

Assistant professor, Department of Agad Tantra, Shree Swaminarayan Ayurvedic College, Kalol.

<sup>2</sup>Faculty of Ayurveda, Department of Dravyaguna vigyan, Parul Institute of Ayurved and Research, Parul University, Vadodara, Gujrat, India.

\*Corresponding Author: Dr Shanti R Nair

Email - [shantirnair27@gmail.com](mailto:shantirnair27@gmail.com), Phone: 9510379038

Article History	Abstract
Received: Revised: Accepted:	Scorpion sting being major public health problem is an acute life threatening, time limiting medical emergency especially in rural parts of India. Though the annual incidence rate of scorpion sting cases in India exceeds 1.23 millions, in which over 32,250 are fatal. There are ample treatment modalities and medicines in <i>keraliyavishachikitsa granthas</i> and in <i>ayurvedic</i> classics which are described for managing <i>vrischikavisha</i> . . This is a case study conducted during the period 2022-2023 at <i>pappinisssheryvishachikitsa Kendra</i> under the department of <i>Agad Tantra</i> , MVR Ayurveda Medical College, Kannur. The main characteristics of scorpion venom poisoning explained in <i>ayurvedic</i> classics are <i>vahnivatdahanam</i> (Burning sensation like fire), <i>Kshipramurdwarohanam</i> (quick spreading in upward direction), <i>Damsha Sopha</i> (swelling), <i>Damshesadyoatiruk</i> (instant severe pain). This is a case report of a 27 year old male diagnosed as <i>vrischikadamsha</i> presenting with pain, burning sensation, erythema and swelling was treated with <i>Shaliparnithailadhara</i> externally and internally with <i>Dasanga agada</i> . Total duration of treatment was for two days third day was observation and fourth day was follow up. Thorough clinical assessment was done before and after the treatment on the cardinal symptoms, pain, erythema, burning sensation and swelling. Based upon the result of the study <i>saliparnithailadhara</i> has shown assuring results in the management of acute scorpion envenomation. This case is an evidence to demonstrate the effectiveness of <i>Ayurvedic</i> treatment in case of <i>vrischikadamsha</i> and as a proposition for further research on more number of patients.
CC License CC-BY-NC-SA 4.0	<b>Key word-</b> Scorpion, <i>Vrischika visha</i> , <i>Manda vrischika</i> , , <i>Shaliparnithailadhara</i> , <i>Dasanga Agada</i> .

### INTRODUCTION

Poisons due to insect bite are common and can be accompanied with a variety of symptoms ranging from simple itching to life threatening situations. *Vrischika damsha* is such a specific envenomation that requires medical attention. In Asia, epidemiological data on scorpion stings is scarce. India is most effected, with a

reported incidence of 0.6%.<sup>1</sup> Among 86 species in India, *Buthus tumulus*, *Palmanus gravimanus* and *Mesobuthus tumulus* (Indian red scorpion) are lethal to humans.<sup>2</sup> In coastal Karnataka and Kerala, the lethal red scorpion is rarely found, but mild poisonous *Heterometrus swamerdami* is copious.<sup>3</sup> Though it is not fatal but this scorpion sting can be severe enough to cause local pain, inflammation, edema and redness of skin.<sup>4</sup> The current treatment strategies for scorpion envenomation comprise antivenom, and supportive therapies like pain relief, steroid and post synaptic alpha adrenergic blocker.<sup>5</sup> But according to meta analysis published recently, the use of antivenom is debatable.<sup>6</sup> The first and foremost sensation which can be felt by a person is severe unbearable pain with burning sensation. In case of scorpion sting, it has been stated that severe the pain, less venomous the scorpion and better the prognosis and vice versa.<sup>7</sup> Based on the signs of sting envenomation, *Vrیشika damsha* is classified into *manda*, *madyama*, *teekshna*ie. mild, moderate and severe, respectively.<sup>8</sup> *Manda vrیشika* is black in colour and produces similar symptoms of genus *Heterometrus* scorpion.<sup>9</sup> According to the degree of poison, multitude of treatment strategies have been enumerated.<sup>10</sup> Ayurveda elucidates treatment protocol under the broad heading of *vrیشikadamshachikitsa* aiming at *vedanasthapana* (analgesic), *Vishaghna* (anti poisonous), and *Shophara* (anti inflammation).<sup>11</sup> Many herbo mineral preparations have been incorporated internally as well as externally based on the symptoms.<sup>12</sup> *Saliparni thaila*<sup>13</sup> is one among them and *Dasanga agada*<sup>14</sup> is one of the *vishahara Agada* in the management of *vrیشikadamsha*.

### PATIENT INFORMATION:

This is a case study of 27 year old male, without any premorbid illness presented to the outpatient department at 9 pm with pain and burning sensation, erythema and swelling on the dorsum of right leg (Fig 1). On interrogation patient revealed history of scorpion sting while walking in the garden for collecting clothes as he unknowingly stamped upon it. At that time, he experienced severe excruciating pain at the bite site, which radiated to the entire leg. After 5 hours he developed swelling at the sting. The patient presented with pain and burning sensation of grade 4 and redness and swelling of grade 2 (Table 1). Dead Scorpion was brought by the patient. (Fig 2)



Fig 1 – Before Treatment



Fig 2- Dead Scorpion

TABLE 1: SUBJECTIVE PARAMETER GRADING:

GRADING	PAIN	BURNING SENSATION	ERYTHEMA	SWELLING
0	No pain	No burning sensation	No redness	No Swelling
1	Pain on pressure	Burning sensation ,not continuous	Diffused only at point of sting.	Diffused only at point of sting.
2	Continuous mild pain not disturbing	Continuous burning sensation, not disturbing.	Diffused involving surrounding area 5cm.	Up to 0.5 cm – 1cm increase in circumference
3	Moderate pain, disturbing	Continuous disturbing	Marked, involving surrounding area up to 5cm.	1cm – 1.5cm increase in circumference
4	Severe pain	Continuous disturbing routine activities	Marked ,involving area more than 5cm	Up to 0.5 cm – 1cm increase in circumference

## CLINICAL FINDINGS

On initial evaluation, he was conscious and glassgow Coma scale was 13. The heart rate was 70/min, and a pulse of

72 beats /min was noted. Blood pressure was 110/80 mm of Hg, body temperature 37.2 degree Celsius, SPO2 was 99 On room air, and respiratory rate was 20/min .The neutrophil, lymphocyte,and monocyte ratios were normal and the eosinophil rate was slightly increases at 6% in complete blood count. Immunoglobulin-E level was 110g/l (0100).Other blood profiles, coagulation parameter, and biochemical values were in normal ranges. Physical examination, all the system was examined thoroughly and no abnormalities detected. On physical examination, single stings mark on the dorsum of right foot. On palpation- The area was warm, farm, tenderness over the site of sting with non pittingodema.

## DIAGNOSTIC ASSESSMENT:

The diagnosis based on the clinical history given by the patient along with the local examination of the patient,which revealed the signs and symptoms of scorpion poisoning as mentioned in classics, *Vedana* (Pain),*Daha*(burning sensation),*Damsha soph*a(Swelling over bitten area),*Raga* (erytoma) are the lakshanas of *mandavrischika visha*.<sup>15</sup>

## THERAPEUTIC INTERVENTION

The patient was administered internally with 2gm tds*Dasangaguika* with luke warm water and externally *saliparnithailadhara* was done for a duration of one hour temperature of *dharam*maintained 40 degree Celsius and dhara was done at a distance of 12 *angula* from the bite site. The whole intervention is for two days. Third day the patient is under observation without any internal or external treatment. Fourth day was the follow up. (Table 2), (Fig 2)

Table 2: INTERVENTION DETAIL

Date	Event		Treatment
July 9 ,2022 9:00 PM	Extreme agonizing pain following scorpion bite at the bite site Swelling associated with redness.		The first dose of <i>Dasangagulika</i> 2gm was given internally. Externally <i>dhara</i> with 100ml of <i>saliparnithaila</i> was done for a duration of one hour temperature of dhara maintained 40 degree Celsius
July 10,2022 11:00 AM	redness. considerably.	Relief in pain,burning sensation and Swelling had a in pain, sensation, redness and swelling.	reduced noticeable burning
July 11,2022 1:00 pm	The patient improvement		The second dose of <i>Dasangagulika</i> 2gm tds was given internally. Externally <i>dhara</i> with100ml of <i>saliparnithaila</i> was done for a duration of one hour temperature of dhara maintained 40 degree Celsius Fourth day was the follow up.

## FOLLOW UP & OUTCOME:

Criteria assessment was based according to the signs and symptoms in ayurveda. The symptoms were assessed before treatment, after treatment and follow up after one day. After completion of treatment the patient had complete relief.

Table 3:-Table Assessment:

SYMPTOMS	DAY 0	DAY 2	DAY 4
Pain	4	2	0
Burning Sensation	4	0	0
Erythema	2	1	0
Swelling	2	1	0



Figure 2: Before Treatment      After Treatment

## DISCUSSION

Vrischickadamsha is characterized by extreme cutting and excruciating pain. The area of sting presented with a single sting mark usually characterized by burning sensation, erythema and swelling. Tingling sensation on the lips and tongue, local rise in temperature, nausea, giddiness are the associated symptoms. Researchers have proved antioxidant and anti-inflammatory property of *saliparni*, acute toxicity study in rat showed that carrageenan induced paw edema test in rats showed significant inhibitory effect confirming the acute anti-inflammatory efficacy of *pseudarthria visida*.<sup>16</sup> The whole plant of *shaliparni* has medicinal property. On *dosha* level *saliparni* has *tridosahara* property. All *nigantu* has included it as a *vishaharadru*. Due to its *tikta* and *3207adhura rasa* it helps to reduce poisonous effect of sting. *Charaka acharya* has included *saliparni* in *angamardaprashamana*, *sothahara*, *snehopaga* and *madhuraskanda*.<sup>17</sup> *Shaliparni* is a *vatashamaka* drug due to *ushna veerya*.<sup>18,19</sup> which removes *srothorodha* caused by *visha* by allowing absorption of *saliparni* in to the skin. The potency of drugs administered through *seka/ dhara* transverse in to body, after getting processed by *brajakaagni* in the skin.<sup>20</sup> The temperature of the medium and the pressure which is exerted by the *dhara* at the site of the bite will cause *srotoshodana* at that area. Thus *srotas* will be dilated and the *doshas* and the *visha* which is causing *dosha dushyasamurchana* there will be removed. In other words blood and lymphatic channels will be dilated and the venom and inflammatory exudates from the site will be washed out from the site and the nervous irritation causing pain will be reduced.<sup>21</sup> Through analysis of *Dasanga Agada* it is a combination of nine drugs namely, *vacha* (*Acorus calamus* linn), *Hingu* (*Ferulanartebioss*), *Vidanga* (*Embliaribesburm*), *Saindavam* (rock salt), *Gaja Pipali* (*Pipper Chaba* hunter), *Patha* (*Cyclea Peltata*), *Prativisha* (*Aconitum heterophyllum*), *Shundi* (*Zingiber officinale*), *Maricha* (*Piper Nigrum*), *Pippali* (*Piper Longum*). Majority of the Ingredients are either *vatakaphaghna* and *ushnaveerya*. In *vrichikadamsha* predominant *dosha* is *vata*. All the above said properties of *dasanga agada* are ready to lend a hand in this condition.<sup>22</sup>

## CONCLUSION

In this case study, *Saliparni* *tailadhara* along with *Dasanga Agada* showed promising results in relieving the cardinal signs and symptoms of scorpion stings especially, pain burning sensation, erythema and swelling. The treatment is less perilous compared to conventional local anesthetic drugs. Further studies recommended on larger sample size on specific species of scorpion and in specific season to redefine final outcome.

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**DECLARATION OF PATIENT CONSENT:**

Authors certify that they have obtained patient consent form, where the patient has given his consent for reporting the case along with the images and other clinical information in the journal. The patient understood that his name and initials will not be published and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

**CONFLICTS OF INTEREST:**

The authors confirm that there is no conflict of interest.

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