

## A CLINICAL TRIAL TO EVALUATE THE EFFICACY OF SHUNTI-TAGARA LEPA & DASANGAM GULIKA IN VRISCHIKA VISHA DAMSA

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### ABSTRACT

**Background:** Scorpionism is a particularly devastating & an endemic public health problem in some part of the India such as Rathnagiri in Maharashtra, Bellary in Karnataka, *Parassinikkadavu* in Kerala. 50 species out of 700, in India, can cause serious illness. They cause simple cytotoxic effect to severe cardio or neurotoxic effect. Those illness managed by sophisticated management measures. Ayurveda has explained numerous medicinal preparations in the management of *Vrishchika Damsha*, but so far very little statistical data is available regarding the efficacy of these medicines. The main objective of the present study was to evaluate combined effect of *Shunti-Tagara Lepa* along with *Dasangam Gulika Sevana* in reducing the five cardinal signs and symptoms due to Scorpion sting viz. Pain, Swelling, Burning sensation, Itching and Erythema. **Methods:** A randomized clinical study was conducted in Pappinissery Visha Chikitsa Kendra, Kannur. Total 30 subjects suffering from Scorpion sting satisfying inclusion criteria were selected and included in a single group. Group received *Shunti-tagara lepa* and *Dasangam gulika* for 4 days and follow up was recorded on 7<sup>th</sup> day. **Results:** Results were observed on 7<sup>th</sup> day after completion of the treatment. Both the drugs when combined showed highly significant results in reducing the three cardinal symptoms by paired t test. (P<0.001). **Interpretation & Conclusion:** Both the drugs when combined were highly significant, on account of percentage of relief obtained, particularly in *Kapha-vaataja* predominant condition.

**Keywords:** Scorpion, *Vrishchika damsha*, *Shunti-Tagara Lepa*, *Dasangam Gulika*

### INTRODUCTION

Ayurveda, term *vrischika*<sup>1</sup> is derived from a root word means *cedane*-to cut. Based on *vishadamsa lakshana*<sup>2</sup> (signs of sting envenomation) classified

*Manda*(mild), *Madhya*(moderate) and *Teekshna*(strong). *Avabhasini* to *Rohini* (layers of skin) is affected except *mamsadhara*(innermost layer

of skin) of *twacha*<sup>3</sup> (skin) and leads to vitiation of *doshas* presenting *pradhaanasthaanikalakshanas* (cardinal symptoms) viz, *Vedana*(pain), *Damsa-sopha* (swelling), *Daha*(burning sensation), *Kandu*(itching)and *Rakthavarnyatha*(erythema). *Sarvadaihikalakshanas* (physiological symptoms) include *jvara*(fever), *jihwastambha* (stiffness of tongue), *kampa*(tremor), *gatrastambha*(stiffness of body) and *murccha*<sup>4</sup> (shock). *Ashtanga Hrudaya*<sup>5</sup>, *Uttarasthana*, *Keetalootadivishapratishedha* (chapter in *ashtanga hridaya* that deals with the treatment of spider and other insect poisoning) mentions *Dasanga Agada Paana* in the context of *vrishchikavishadamsa* (scorpion sting envenomation). *Acara Kanda* which comes under *Poorvakanda* of *Garudapurana*<sup>6</sup> discuss about *sarpa*(snake), *keeta*(insects and scorpions) and other type of *visha* with *lakshana* and *chikitsa*. There explains *Shunti-tagaralepa* in *vrishchikavishadamsha* and *Garuda purana poorvakanda* presents *Dhanwantharisamhitha*, treatise on medicine. *Upasaya*(treatment) and *Samprapti*(prognosis) related chapters of *Garudapurana* are similar to *Nidanasthana* of *AshtangaHridaya*. *Garuda purana*<sup>6</sup> being one of the 18<sup>th</sup>*Mahapurana* deals with highly diverse collection of topics like *Utpatti* of *Loka*(origin of universe), *Mithya*, relationship between *Devas* and *Asuras*, *Yama* and *Niyama*, *Satkarma* and *Paapakarma*, *Samkhya*, *Nyaaya*, *Vaisheshika*, *Purvamimamsa*, *Vedanta*, *Yoga*, theory of *Swarga* and *Naraka* with respect to *Karma* and *Punarjanma*, *Shraddha*, *Nirvaana*, *Prakriti*, types of *Dhatus*(minerals and metals)and *Ratnas*(gem stones), various *Rogas* and their *Lakshanas*, various *Oushadhayogas* (medicinal recipes), *Rasayana* (rejuvenatives) and *Vajeekarana aushadhis* (aphrodisiacs), *Jyotishastra* (astrology), *Vaasthusastra* (architecture) etc. The *chikitsa* of *vrishchikavishadamsa* in areas where population of the species is high lacks emergency care as *pradhaanalakshana* swiftly manifests, an awareness of easily available *yogas* need to be done. Before the medical theories are established as practicable, they

should be substantiated by practical experience. Simple theoretical argumentation based on inference signifies zero. Clinical studies are considered as one of the best tools to reach to a certain wrapping up in the medical field. *Dasangamgulika* is helpful in pacifying *vedana*, *daha*, *kandu* and *Shunti-tagaralepa* for *damsa-shopha* and *raktavarnyatha* due to *sthaanika vrishchika vishadamsa*(locally manifested cardinal symptoms). *Dasangamgulika* and *Shunti-tagara lepa* the trial drugs are cost effective, easily prepared, and easily administrable.

### Materials and Methods:

- Literary source:** *Garuda Mahapurana Acara kanda* 1st Volume, Chapter no 191, *Prayoga Samucchayam* 7<sup>th</sup> Chapter on *Vrishchika samanya chikitsa*, *Ashtanga Hrudaya uttarantra* 37<sup>th</sup> chapter on *Keetaloothadi visha pratishedham*.
  - Drug source:** The drug is selected from local areas and market after proper identification. Authentication and preparation of *Shunti-tagaralepa* and *Dasangam gulika* done from Alva's pharmacy, Mijar
  - Sample source:** Patients of Scorpion Sting cases are from Pappinissery Visha Chikitsa Kendram, Parassinikkadavu, Kannur, Kerala & Other referral cases of scorpion sting poisoning that comes under inclusion criteria
  - Research Design:** 30 Patients of *Vrishchika Damsa* were selected as per the inclusion criteria, from the Visha Chikitsa Kendra, Pappinisseri, and other sources. They were included in a single group. Group received *Shunti-tagaralepa* and *Dasangamgulika Pana* was given for 4 days and followed up to 7<sup>th</sup> day [Total study duration was 7 days]. Thorough clinical assessment was done before and after the treatment. The result was analyzed statistically.
- Selection of Subjects:** Patients were selected as per the selection criteria for the study and were assigned to a single group.

- d. **Inclusion criteria:** Patients irrespective of sex, religion, socio-economic status having age between 16-65 years. Patients with history of Scorpion sting with duration not more than 48 hours. Patients with essential symptoms like Pain, Swelling, Burning sensation, Itching & Erythema due to Scorpion sting.
- e. **Exclusion criteria:** Patients below 16 years and above 65 years of age. Patients suffering from other systemic diseases that interfere with the prognosis and management of scorpion sting. Patient with serious condition such as convulsion, unconscious, coma and other sign of neuropathy. Patient of red scorpion sting and any post sting systemic involvement. Patient who have undergone any other treatment for same complaint.
- f. **Research Techniques and Tools:** A proforma was designed to collect and record the information verbally reported by the subjects and physically examined by the researcher. Proper grading was done to calculate the exact intensity of the cardinal symptoms like Pain, Burning sensation, sweating, Numbness, Swelling, Referral pain (localized lymph node involvement) etc as per Sushruta samhitha-*Vrischikadamshalakshana*. Haemogram was done to subject who shows the systemic involvement. Photos of the affected site have been taken with prior informed consent of the research participants.

**Table 1:** Clinical Study Plan

Sl No.	Details	Trial Group
1	Sample size	30 patients
2	Drug (Externally)	Sufficient quantity of Shunti-tagaralepa With Madhu <sup>7</sup>
3	Temperature	Room temperature
4	Thickness	1/3 Angula <sup>8</sup> (0.587 cms)
5	Site	Over the affected area of sting
6	Duration of lepa	From application to just before complete drying
7	Frequency of lepa	4 times a day with an interval of 4 hours
8	Drug (orally)	Dasangamgutika
9	Dose	2 tablet (500mg) BID
10	Anupana	Ushnajala
11	Duration	7 days

**Assessment & Statistical Analysis: -**

Assessment was done before treatment, on 4<sup>th</sup> day & on 7<sup>th</sup> after the treatment and the score for the cardinal symptoms was obtained. Pre-treatment and post treatment (7<sup>th</sup> day) data was subjected to statistical analysis and the comparison was done within the group by using student's paired t- test.

**Total Effect of Therapy: -**

Total effect of therapy on 30 subjects of *VrishchikaDamsa* was given in percentage by

calculating the mean difference of the scores, before and after the treatment.

1. 100 % relief --- Cured.
2. >75 % to 99 % --- Marked improvement.
3. >50 % to 75% --- Moderate improvement.
4. >25 % to 50 % --- Mild improvement.
5. 0 % to 25 % --- Unchanged.

**RESULTS**

**EFFECT OF TREATMENT ON INDIVIDUAL SYMPTOM IN TRIAL GROUP**

**Table 2:** Effect of the Therapy on Pain (Paired t - test)

Sl. No	Symptoms	Mean		Mean difference	%	Paired 't' test				
						SD	SE	t	P	
1	Pain	BT		1.0	39.47					
		2.5	AT			1.5	0.681	0.124	3.595	<0.001
			AF			0.6	0.490	0.0895	34.106	<0.001

As seen in table no. 40 Which compares the effectiveness of the treatment on pain, the mean score was reduced from 2.5 to 1.5 after the treatment i.e. on 4<sup>th</sup> day and 0.6 at follow up i.e. on 7<sup>th</sup> day, mean difference was 1.0 with SD

+ 0.681 after the treatment & 0.490 at follow up. Percentage of relief obtained was 39.47%. t value was found to be 3.595 after the treatment & 34.106 at follow up which was statistically highly significant (P< 0.001).

**Table 3:** Effect of the Therapy on Swelling (Paired t - test)

Sl. No	Symptoms	Mean		Mean difference	%	Paired 't' test				
						SD	SE	t	P	
1	Swelling	BT		1.0	90.91					
		1	AT			0	0.403	0.0735	5.955	<0.001
			AF			0	0.254	0.0463	31.000	<0.001

As seen in table no. 41 Which compares the effectiveness of the treatment on swelling, the mean score was reduced from 1 to 0 after the treatment i.e. on 4<sup>th</sup> day and 0 at follow up i.e. on 7<sup>th</sup> day, mean difference was 1.0 with SD

+ 0.403 after the treatment & 0.254 at follow up. Percentage of relief obtained was 90.91%. t value was found to be 5.955 after the treatment & 31.000 at follow up which was statistically highly significant (P< 0.001).

**Table 4:** Effect of the therapy on Burning sensation (Paired t - test)

Sl. No	Symptoms	Mean		Mean difference	%	Paired 't' test				
						SD	SE	t	P	
1	Burning Sensation	BT		1.0	93.75					
		1.1	AT			0.1	0.254	0.0463	5.595	<0.001
			AF			0.33	0.183	0.033	31.000	<0.001

As seen in table no. 42 Which compares the effectiveness of the treatment on burning sensation, the mean score was reduced from 1.1 to 0.1 after the treatment i.e. on 4<sup>th</sup> day and 0.33 at follow up i.e. on 7<sup>th</sup> day, mean difference was

1.0 with SD + 0.254 after the treatment & 0.183 at follow up. Percentage of relief obtained was 93.75%. t value was found to be 5.595 after the treatment & 31.000 at follow up which was statistically highly significant (P< 0.001).

**Table 5:** Effect of the therapy on Itching (Paired t - test)

Sl. No	Symptoms	Mean		Mean difference	%	Paired 't' test				
						SD	SE	t	P	
1	Itching	BT		0.367	100					
		0	AT			0	0.000	0.0910	6.595	<0.001
			AF			0	0.000	0.000	4.097	<0.001

As seen in table no. 43 Which compares the effectiveness of the treatment on itching, the mean score was reduced from 0 to 0 after the treatment i.e. on 4<sup>th</sup> day and 0 at follow up i.e. on 7<sup>th</sup> day, mean difference was 0.367 with

SD + 0.000 after the treatment & 0.000 at follow up. Percentage of relief obtained was 100%. t value was found to be 6.595 after the treatment & 4.097 at follow up which was statistically highly significant (P< 0.001).

**Table 6:** Effect of the therapy on Erythema (Paired t - test)

Sl. No	Symptoms	Mean			Mean difference	%	Paired 't' test			
		BT	AT	AF			SD	SE	t	P
1	Erythema	1			0.6	60				
			0.4				0.498	0.0910	6.595	<0.001
			0				0.000	0.000	4.697	<0.001

As seen in table no. 44 Which compares the effectiveness of the treatment on erythema, the mean score was reduced from 1 to 0.4 after the treatment i.e. on 4<sup>th</sup> day and 0 at follow up i.e. on 7<sup>th</sup> day, mean difference was 0.6 with SD

+ 0.498 after the treatment & 0.000 at follow up. Percentage of relief obtained was 60%. t value was found to be 6.595 after the treatment & 4.697 at follow up which was statistically highly significant (P< 0.001).

**Table 7:** Percentage of Relief obtained in each sign & symptom

Symptom	Percentage of relief obtained
Pain	39.47%
Swelling	90.91%
Burning Sensation	93.75%
Itching	100%
Erythema	60%

**Table 8:** Percentage of effect of therapy in the group

Effect of therapy	Group	Percentage (%)
100% relief - Cured	0	0
>75% <100% - Marked improvement	19	63.33
>50% to 75% - Moderate improvement	9	30
>25% to 50% - Mild improvement	2	6.66
>0% to 25% - Unchanged	0	0

**Table 9:** Master Chart

PT NO	PAIN			SWELLING			BURNING SENSATION			ITCHING			ERYTHEMA		
	BT	AT	AF	BT	AT	AF	BT	AT	AF	BT	AT	AF	BT	AT	AF
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
36	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
38	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
39	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AVG															
%															

**DISCUSSION**

**Effect on the Individual symptom: -**  
**Effect of therapy on Pain (Ruja): - (Table No.2)**  
 ❖ The result on Ruja showing statistically highly significant results in combination, which

indicates that *ShuntitagaraLepa* along with *Dasangamgulika* gives an effective action on *Ruja* in *Vrishchikavisha*. If we see the % of relief, it is 39.47% relief in the trial group. This may be due to the *Tridosahara*, *Ushnaveerya*,

*Vedanasthapana* and *Vishaghna* properties of the drugs of the both the *yogas* which subsides *Vathadosha* and reduces *Ruja* in *VrishikaVisha*. So the combined effect of *Shunti-tagaralepa* along with *Dasangamgulika* gives significant efficacy in pain

**Effect of therapy in Swelling (*Damsasopha*) (Table No 3)**

- ❖ The result on *damsasopha* showing statistically highly significant results in combination, which indicates that *ShuntitagaraLepa* along with *Dasangamgulika* gives an effective action on *damsasopha* in *Vrishikavisha*. If we see the percentage of relief, it is 90.91% relief in the trial group. This may be due to the *thiktha* and *kashaya rasa*, *vishaghna* and *sopha-sothahara* properties of the drugs of the both the *yogas* which subsides *Kapha & Vatha* in *VrishikaVisha*. So the combined effect of *Shunti-tagaralepa* along with *Dasangamgulika* gives significant efficacy in *damsasopha*.

**Effect of the therapy on Burning sensation (*Daha*) (Table No 4)**

- ❖ The result on *daha* showing statistically highly significant results in combination, which indicates that *ShuntitagaraLepa* along with *Dasangamgulika* gives an effective action on *Ruja* in *Vrishikavisha*. If we see the % of relief, it is 93.75% relief in the trial group. This may be due to the *thikthakashaya rasa pradhana*, *Sheethaveerya*, and *dahaprashamana* properties of drugs of the both the *yogas* which subsides *Pitta dosha* and does *raktashodhana* in *VrishikaVisha*. So the combined effect of *Shunti-tagaralepa* along with *Dasangamgulika* gives significant efficacy in *daha*

**Effect of the therapy on Itching (*Kandu*) (Table No 5)**

- ❖ The result on *kandu* showing statistically highly significant results in combination, which indicates that *ShuntitagaraLepa* along with *Dasangamgulika* gives an effective action on *kandu* in *Vrishikavisha*. If we see the % of

relief, it is 100% relief in the trial group. This may be due to the *thikthakashaya rasa pradhana*, *lekhaneeya*, *kandughna* and *vishaghna* properties of some of the drugs which subsides *Kaphadosha* and gives a better result in *Kandu*

**Effect of the therapy on Erythema (*Raktavarnyatha*) (Table No 6)**

- ❖ The result on *raktavarnyatha* showing statistically highly significant results individually, which indicates that *ShuntitagaraLepa* along with *Dasangamgulika* gives an effective action on *raktavarnyatha* in *Vrishikavisha*. If we see the % of relief, it is 60% relief in the trial group. This may be due to the *thikthakashaya rasa*, *sheethaveerya*, *vishaghna*, and *rakthashodhana* properties of some of the drugs which subsides *Pitta dosha* and does *Rakthashodhana* and gives a better result in *Kandu*.

**DISCUSSION REGARDING OVERALL EFFECT: - (Table no 7 & 8)**

Overall effect shows that the drugs when combined were highly significant in the management of *Vrishchikadamsha cases*. ( $P < 0.001$ ) (Paired t test). On assessing overall effect of therapy, it is found that **63.33%** of patients had marked improvement, **30%** had moderate improvement and **6.66%** had mild improvement from symptoms.

Highly significant results were found as the combined efficacy has provided more significant results, which shows that for complete cure of the symptoms of *Vrishchikavisha* both the internal and external medication are necessary.

It suggests that *shuntitagaralepa* along with *dasangamgulikasevana* in *vrishchikavisha* is a quite stable and suitable therapy.

**PROBABLE MODE OF DRUG ACTION: -**

➤ **Probable mode of action of *Lepa*:-**

The concept of per cutaneous absorption envisaged in the modern physiology can be summed up as follows: There are three possible routes of absorption. The pilo sebaceous follicles play some part in absorption of many compounds. The trans-

follicular absorption, the route of penetration is through the follicular pores to the follicles and then to the dermis via the sebaceous gland. The permeability of the cells of the sebaceous gland is greater than that of granular layer of the epidermis. In this way the substances, which are used in *Lepa*, may absorbed and enter in the blood and removes the pathology. The modern physiology and biochemistry says that it is possible to produce a certain amount of absorption by the application of substances conveyed in fatty vehicles (Lovatt Evan's Physiology, 11<sup>th</sup> edition).

- Lesser the particle size → more the surface area.
- Lesser the particle size → lesser will be the drying time.
- Lesser the particle size → more the rate of absorption.

#### Discussion on *Madhu*:-

*Madhu*, A naturally occurring, thick, syrupy, translucent yellow to yellowish brown fluid, sweet to taste with a pleasant odour and flavor produced by honey bees by enzymatic transformation of floral nectar ingested by them and deposited in the cells of hives or combs which is administered due to disorders due to poison. When poured on to a tray as a thin layer, no impurities like mould, dirt, bee wax, insect fragments, plant debris or any other objectionable foreign matter should be visible to the naked eye in daylight. *Lepa* can be applied only with a suitable medium. The *yogavahi* property of honey enhances the action of other drugs in this *lepa*, thus resulting in quick relief in symptoms like pain, itching, edema, erythema and burning sensation. *Vishahara* and *tridosahara* property of honey further add to the *visha* and *sophasamanatva* of the *lepa*. When an edema occurs, the inflammatory response results in transudation of fluids, progressive vasodilation, and increased blood flow. So, topical medicines if applied externally can penetrate the dermal layer easily. Further the medication is also absorbed through hair follicles

and sweat glands. The active principles, thus reached in to the deeper layers of skin undergo cutaneous biotransformation and help to pacify symptoms. Thus

Proportionate distribution of all the properties in *Shuntitagaralepa* shows that drugs are having *UshnaVeerya*, among them and are *Vataghna* and *kaphaghna*. The *yogavahi* property of *Madhu* enhances the action of the drugs in the *lepa*. *Vishahara* and *tridosahara* property of honey further add to the *visha* and *sophasamanatva* of the *lepa*. The inflammatory response results in the transudation of fluids, progressive vasodilatation and increased blood flow. So, topical medicines if applied externally can penetrate the dermal layer easily. The active principles reach the deeper layers and go cutaneous biotransformation and pacify symptoms. By these properties the drug *Shuntitagaralepa* may give relief in Pain, Swelling and Burning sensation.

#### Probable Mode of action of *DasangamGutika*: -

In the present study, over all result obtained can be partially attributed to the composition of *Dasangamgulikasevana*. It was practiced as per treatment protocol in Kerala for *VrishikaDamsha* and also to avoid *anubandhaupadravas*. Proportionate distribution of all the properties in *DasangamGulika* shows that 85.71% drugs are having *UshnaVeerya*, among them 78.57% are *Vata-Kaphaghna*. By these properties the Drug *Dasangamgulika* may give relief in Pain, Swelling & Itching. It contains *Pippali* which is also having the properties like anti-allergic (Dahanukar S.A et al 1984), Anti pyretic (Singh et al 1973), Analgesic (Singh et al 1973), and Anti-inflammatory (Singh et al 1973). *Dasangamgulika* contents 7.14% *Sheeta* and *Anushnasheeta Veeryadravya*, which may act as *pittaghna*. 21.42% are with *Madhura* rasa and 28.57% are *Tridosh'aghna*. All these properties may help to reduce the Erythema as well as burning sensation due the Scorpion sting.

**Discussion on Overall Study:-**Scorpions found in the western coastal belts can be compared with

*Mandavishavrischika*. Extend of toxicity depends on toxicity of the venom, quantity of venom, size of the victim and general medical condition of the victim. Severe envenomation symptoms as explained by textual references were never found in any of the patient during the trial. Antivenom must only be administered in the case of severe systemic envenomation. 33.33% subjects were having Tachycardia, Hypertension was present in 30%. 30% subjects were having local rise in the temp and reduced after 4 days of treatment and this would probably due to systemic action of *dasangamgulika*. Working class of labours, homemaking women, people whose employment is mediocre as per educational qualifications, people who work on wood and stone, agriculture related workers and farmers and also people who depend on firewood as fuel for cooking purpose are more prone to suffer from *vrishikavishadamsa*. People who moves back to their home from their work place, who have addictions like alcohol and also of *vaata-pitta prakriti* is more prone to suffer from *vrishikavishadamsa*. Due to *madhyamarogabala* and *rogibala*, and *madhyamasatwa* more significant results were obtained. Due to the Tridosahara, Ushnaveerya, Vedanasthapana and Vishaghna, properties of the drugs of the both the yogas which subsides Vatadosha and reduces Ruja in VrishikaVisha. Due to the thiktha and kashaya rasa, vishaghna and sophasothahara properties of the drugs of the both the yogas which subsides Kapha & Vata in VrishikaVisha. Due to the thikthakashaya rasa pradhana, Sheethaveerya, and dahaprashamana properties of drugs of the both the yogas which subsides Pitta dosha and does raktashodhana in VrishikaVisha. Due to the thikthakashaya rasa pradhana, lekhaneeya, kandughna and vishaghna properties of some of the drugs which subsides Kaphadosha and gives a better result in Kandu. Due to the *thikthakashaya rasa*, *sheethaveerya*, *vishaghna*, and *rakthashodhana* properties of some of the drugs which subsides *Pitta dosha* and does *Rakthashodhana* and gives a better result in

*Kandu*. 63.33% of patients had marked improvement, 30% had moderate improvement and 6.66% had mild improvement from symptoms. It suggest that *shuntitagaralepa* along with *dasangamgulikasevana* in *vrishikavisha* is a quite stable and suitable therapy. *Shuntitagaralepa* have *UshnaVeerya* drugs and are *Vataghna* and *kaphaghna*. *Yogavahi* property of *Madhu* enhances the action of the drugs in the *lepa*. *Vishahara* and *tridosahara* property of honey further add to the *visha* and *sophashamanatva* of the *lepamay* give relief in Pain, Swelling and burning sensation. In *Dasangamgulika* 85.71% drugs are having *UshnaVeerya*, among them 78.57% are *Vata-Kaphaghna* and reduce Pain, Swelling & Itching. 7.14% *Sheeta* and *Anushnasheeta Veeryadravya*, which may act as *pittaghna*. 21.42% are with *Madhura* rasa and 28.57% are *Tridoshaghna*. All these properties may help to reduce the Erythema as well as burning sensation due the Scorpion sting. In *Vrishikavishadamsa*, people usually stop medications once the cardinal symptoms subside for them. These later result in the formation of *Garavisha* due to incomplete expulsion of *Vrishikavisha*. As per classical references, *Vrishikavisha* takes 21 days for the complete recovery of symptoms, so a medication of 21 days duration is recommended

## CONCLUSION

The rate of drug absorption depends mainly on the dosage form, route of administration and particle size. Increase surface area of drugs helps in quick absorption of active principles by facilitating easy penetration of drug mixture in to the skin tissue. Honey acts as an ideal base to transport the active principles of the drug in to the deeper stratum of skin and also helps in resolving the symptoms of *Vishajasopham*. Majority of the drug in *Dasangamgulika* have properties of *Vedanasthapana*, So, this Drug is beneficial in *VrishikaDamshaa*. Half of ingredients are having property of *Shothahara*. So this drug is

recommended to *VrischikaDamsa*. In present study by analysing all these factors we found that *Shuntitagaralepa* along with *Dasangamgulikasevana* in *Vrischikavisha* is a quite stable and suitable therapy and is highly significant ( $P<0.001$ ) in reducing the cardinal symptoms selected for the study viz. Pain, Burning sensation, Swelling, Itching and Erythema.

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## Treatment Profile



Before treatment



During treatment



After treatment



At Follow up

**Source of Support: Nil**

**Conflict Of Interest: None Declared**

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