



## Review Article

www.ijrap.net (ISSN:2229-3566)



## A REVIEW ARTICLE ON ANTI-TOXIC ACTION OF SIREESHABEEJADI YOGA

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Received on: 16/06/20 Accepted on: 28/07/20

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DOI: 10.7897/2277-4343.1104128

## ABSTRACT

Agada tantra is one among the eight branches of Ayurveda, which deals with the effects of poisonous substances, both animate and in-animate along with their diagnosis and treatment. Various types poisoning related to insect bite, spider bite, rat bite and scorpion bites are commonly observed in our Agadam OPD. Though the common varieties found in India are not fatal, they produce severe localized symptoms, thus affecting the quality of life. Unless properly treated, it leads to latent poisoning. There are numerous Agada Yogas (Anti-toxic formulations) in our classical treatises which can be judiciously used in Toxicological arena. One such Yoga is Sireeshabeejadi Agada mentioned in Ashtanga Sangraha. Pharmacological aspect of the Formulation has been discussed in detail to prove its efficacy in combating various types of poisonous bites. Here, the anti-toxic action of Sireeshabeejadi Yoga has been explored.

**Keywords:** Agada tantra, Sireeshabeejadi, Yoga, Arka ksheera, Pippali.

## INTRODUCTION

Agada tantra is intended for diagnosis and management of various poisonings such as bites of Sarpa (snakes), keeta (insects), loota (spiders) and mooshaka (rats) etc. besides other poisonous substances. Agada tantra aims to protect healthy individuals from poisons and also management of individuals afflicted from poisons. According to Vagbhata Acharya, Visha is classified into Akritrima Visha (Natural poison) and Kritrima Visha (Artificial poison). Natural poisons are of two kinds- Sthavara and Jangama<sup>1</sup> i.e. inanimate and animate. Artificial poison is known as Gara visha<sup>2</sup>.

As per Ayurveda, Visha means any substance that enters the body, vitiating the normal functioning of Rasadi Sapta Dhatus culminating either in ill health or death<sup>3</sup>. A Poison is a substance (solid, liquid or gaseous), which if introduced in the living body or brought into contact with any part thereof, will produce ill health or death, by its constitutional or local effects or both<sup>4</sup>. All the Jangama Vishas are responsible for Snake bites, Spider bites, Scorpion bites, Insect bites etc. Sireeshabeejadi Yoga mentioned in Ashtanga Sangraha in Keeta Visha Pratishedha can be beneficial in all such bites<sup>5</sup>

Table 1: Ingredients of Sireeshabeejadi Yoga

S. No.	Name of Ingredients
1	Sireesha beeja
2	Arka Ksheera
3	Pippali choorna

## Sireesha

Sireesha with botanical name *Albizia lebbek* Linn. belongs to family mimosaceae with English Name Woman's tongue tree and

synonyms Sukataru, Sukapriya, Bhandi, bhandila, kapeetana, and Mrdupuspa. Among the 152 Agrya aushadhas mentioned in Charaka Samhita Sutra sthana, Shireesha is the best vishaghna dravya. It brings about Kapha-medo Vishoshana.

Table 2: Ganas and Vargas according to acharyas

Charaka	Vishaghna, Vedanasthapana, Sirovirechana Kashaya skandha
Sushruta	Salasaradi
Vagbhata	Asanadi
Shodhala Nighantu	Amraadi Varga
Dhanvantara Nighantu	Amraadi Varga
Bhava prakasha Nighantu	Babooladi Varga

Table 3: Different Opinions: Rasa Panchaka, Karma and Indications

Rasa Panchaka		M.N.	B.P.	D.N.	R.N.	K.N.	So. Ni.
Rasam	Madhura						
	Tikta						
	Kashaya						
	Katu						
Guna	Laghu						
Veerya	Sheeta						
	Ushna						
	Anushna						
M.N.-Madanapala Nighantu, R.N.-Raja Nighantu, B.P.- Bhava Prakash, K.N.- Kaiyadeva Nighantu, D.N.-Dhanvantara Nighantu, So. Ni- Shodhala Nighantu							
Karma		M.N.	B.P.	D.N.	R.N.	K.N.	Sod. Ni.
	Vatahara						
	Kapha pitta hara						
	Sannipata hara						
	<b>Vishahara</b>						
	Twak dosha vinashana						
	Varnya						
	Shophahara						
	Vedana Sthapana						
	Vrana Vishodhana						
	Kandughna						
Swedahara							
<b>Indications</b>	Visarpa						
	Shwasa						
	Kasa						
	Arsas						
	Pama						
	Kustha						
	Bhagna						
	Twak roga						

### Important Formulations

Sireesha Arishta, Panchasirisha Agada, Panchasirisha Ghrita, Narsimha Rasayana, Dashanga lepa, Ayaskriti, Devadarvya Arista, Brihat marichadi tailam.

### Therapeutic Uses of Sireesha

Stem bark and fruits are mainly used in cases of Mushika visa, Sarpa dama, Visha dushti and also in skin cases like Pama, Kustha, Visarpa and Kandu. It is also indicated in Shwasa, Kasa, Vrana Suryavarta, Ardhavabhedaka, Krimi, Pratishtyaya, Sita pitta and Vishama jwara.

### Research Updates

The anti-inflammatory, anti-fungal, anti-bacterial activity, anti-asthmatic, antioxidant and anti-allergic activity of *Albizia lebeck* has been proved<sup>6</sup>. The analgesic, anti-inflammatory, anti-fungal,

anti-bacterial activity, antioxidant and anti-allergic activity of Flavonoids present in *Albizia lebeck* has also been proved.<sup>7</sup>

### Arka

Arka with Botanical name *Calotropis procera* Linn., *Calotropis gigantea* Linn. belongs to family Asclepiadaceae with English Name Madar and synonyms Alarka, Mandara, Sadapuspa, Tulaphala, Asphota and Ksaraparna. Charaka has mentioned Arka among Ksheeratraya in first chapter of Sutra sthana, for the purpose of Vamana and Virechana. Drugs of Arkadi Gana have Kapha-bhedana and Vishahara Action. It is observed that when the stem and leaves of Arka are cut, crushed or incised, it yields thick, acrid milky white latex called Arka ksheera (Madar juice). This juice forms into a coagulum or white clot, leaving a clear straw coloured serum after it is heated or allowed to stand for few hours. This coagulum yields a yellowish-brown resin and a white crystalline substance having formula (C<sub>27</sub>H<sub>46</sub>O<sub>2</sub>)<sup>8</sup>.

Table 4: Ganas and Vargas According To Acharyas

Charaka	Bhedaniya, Vamanopaga, Svedopaga
Sushruta	Arkadi, Adhobhagahara
Vagbhatta	Arkadi
Shodhala Nighantu	Karaveeradi Varga
Bhava Prakash Nighantu	Guduchyadi Varga

### Classification

**Ayurveda:** Sthavara visha varga, Upavisha

**Modern:** Irritant organic vegetative poison

### Major Chemical Constituent

Calotoxin, Calotropin, Calactin, Uscharin.

Arka ksheera contains all these constituents along with Trypsin

Table 5: Different Opinions: Rasapanchaka, Karma, Indications of Arka

Rasapanchaka		R. N.	Ma. Ni.	B. P.	K. N.	So. Ni	D.N.
Rasa Katu		✓					✓
Tikta			✓		✓		✓
Guna Tikshna			✓			✓	
Guna Sara				✓	✓	✓	✓
Virya	Ushna	✓			✓		✓
Vipaka	Katu	✓	✓	✓	✓	✓	✓

M.N.-Madanapala Nighantu, R.N.-Raja Nighantu, B.P.- Bhava Prakash, K.N.- Kaiyadeva Nighantu, D.N.-Dhanvantara Nighantu, So. Ni- Shodhala Nighantu

Karma		R. N.	Ma. Ni.	B. P.	K.N.	So. Ni.	D. N.
	Vatahara	✓					
	Kaphahara			✓			
	Kaphavata hara		✓		✓	✓	✓
	Shophahara	✓					
	Vranahara	✓					
	Vishapaha		✓				✓
	Deepaniya	✓					✓
Medohara						✓	
Indications		R.N.	Ma. Ni.	B.P.	K.N.	So. Ni.	D.N.
Kandu		✓		✓			✓
Kustha		✓	✓	✓	✓	✓	✓
Krimi		✓	✓		✓	✓	✓
Visha				✓	✓		
Sankhavata							
Pleeha				✓	✓		✓
Gulma				✓	✓		
Arsas				✓	✓	✓	
Yakrt							
Udara				✓			
Visoochika						✓	
Visarpa							✓
Siroroga		✓					
Kaphaja Roga		✓					

Table 6: Different Opinions: Rasapanchaka of Arka Ksheera

Rasapanchaka		K. N.	So. Ni	B. P. N.	R. T.
Rasa	Tikta	✓		✓	✓
	Lavana	✓		✓	
	Katu				
Guna	Snigdha	✓		✓	✓
	Laghu	✓		✓	
Virya	Ushna	✓		✓	✓
Vipaka	Katu	✓		✓	✓

### Arka ksheera Shodhana

Tila is fried and put into Arka ksheera for purification purpose. Another method is either 2 or 3 among the following combination of Ela, Maricha, Nagahwa and Pippali is fried and put into Arka Ksheera<sup>9</sup>. Some Rasa Shastra Acharyas, opine that Arka Ksheera is pure by itself and hence no purification is required<sup>10</sup>. Some suggest same Sodhana Vidhi as that of Snuhi ksheera<sup>11</sup>.

### Arka ksheera properties

Arka ksheera has tikta rasa and laghu, ushna, Snigdha guna. It is useful in gulma, udara, kustha and is Shreshta virechana aushadha. It is effective in chronic Pile masses and krimidanta shula. When applied on skin it has a Kshara action.

### Formulations of Arka

Mrutasanjivani Agada, Amruta Ghrita, Arka lavana, Arka vati, Arka tailam, Ravimuladi vati, Aadraka ghrita, Mahavishagarbha tailam, Vajraka tailam, Prabhanjana Vimardana Tailam Marichadi tailam, Shankh vati, Kshara Gutika.

### Research Updates

Analgesic, anti-inflammatory, wound healing activity of Arka has been shown in a study by Kumar *et al.* Titled as A review on Pharmacological and Phytochemical Profile of *Calotropis gigantea* Linn. Published in Pharmacologyonline.<sup>12</sup>

### Pippali

Pippali with Botanical name *Piper longum* Linn. belongs to family Piperaceae and English name Indian Long pepper and Synonyms Krsna, Upakulya, Magadhi and Kana.

Table 7: Ganas and Vargas according to Acharyas

Charaka	Deepaniya, Kanthya, Asthapanopaga, Sirovirechanopaga, Sheetaprashamana, Sulaprashamana, Kasahara, Hikka nigrahana, Triptighna, Vamana
Sushruta	Pipalyadi, Urdhwabagahara, Tryusana, Amalakyadi, Sirovirechana.
Vriddha Vagbhata	Pipalyadi
Shodhala Nighantu	Satapuspadi varga

Table 8: Different Opinions: Rasa Panchaka, Karma, Indications of Pippali

Rasa Panchaka		D. N.	K. N.	R. N.	So. Ni.	M. P. N.
Rasa	Katu	✓	✓	✓	✓	✓
	Tikta		✓	✓		
Guna	Snigdha	✓	✓	✓	✓	✓
	Laghu		✓		✓	✓
	Sara				✓	
Virya	Ushna			✓	✓	
	Atyusna					✓
	Anushna		✓			
	Sheeta	✓				
Vipaka	Madhura	✓	✓		✓	✓

Karma	D. N.	K. N.	R. N.	So. Ni.	M. P. N.
Tridoshaghna	✓				
Kapha vatahara		✓	✓	✓	✓
Pittala		✓			
Pitta-avirodhi				✓	
Rasayana	✓			✓	✓
Ama-dosha nashana	✓				
Vrishya		✓	✓	✓	✓
Ruchya		✓			
Dipana-Pachana		✓	✓	✓	✓
Hridya		✓			
Indications	Jwara	✓		✓	
	Trt	✓			
	Udara	✓			
	Krimi	✓			
	Shwasa		✓	✓	✓
	Kasa		✓	✓	✓
	Ksaya			✓	
	Yakrit-pleeha				✓

### Method of Preparation

The drugs Sireesha beeja and Pippali are taken in equal quantity and made into fine powder followed by trituration (Bhavana) with

sufficient quantity of Arka ksheera for 3 days with the help of mortar and pestle and made into gutika or any other form as per the requirement<sup>13</sup>.

Table 9: Pharmacodynamics of Sireeshabeejadi Choorna Yoga

Drug	Rasa	Guna	Veerya	Vipaka	Dosha karma
Sireesha beeja	Tikta, katu, Madhura	Laghu, Ruksha	Anushna	Katu	Tridoshaghna
Pippali	Katu, Tikta	Laghu, Snigdha	Anushna	Madhura	Kaphavata hara
Arka ksheera	Katu, Tikta, Lavana	Laghu, sara, Snigdha, Tikshna	Ushna	Katu	Kaphavata hara

### DISCUSSION

#### Probable Mode of action of Yoga

On analyzing the pathogenesis of Visha, we can see that Visha entering body through different types of bites primarily vitiates the Rasa, Raktadi Dhatus causing Sannipata kopa (mainly pitta-kapha). There is Dosha-dushya sammurchana taking place and causing Shrotorodha, which in turn leads to manifestation of symptoms. Both localized and systemic manifestations are exhibited. By external and internal administration of Vishaghna yogas, both internal toxicity and localized symptoms are pacified.

Sireeshabeejadi Yoga contains kapha-vata Samana drugs and it has Srotoshodhana, Lekhaniya and Vishaghna and tikshna property. Sireesha being an Agrya vishaghna aushadha is effective in all types of bites. Sireesha having vedanasthapaka

property helps to pacify pain. Also, Tikshna Ushna Veerya and Vataghna guna of Arka ksheera contributes towards breaking the samprapti of Ruja. Due to Arka ksheera Bhavana, the formulation is potentiated and impregnated with high therapeutic properties. All the drugs in this yoga possess anti-microbial, anti-viral, anti-inflammatory, analgesic, cardio-protective, anti-septic, anti-fungal, antioxidant and immune-modulating properties.

#### CONCLUSION

Hence, we can conclude that Sireeshabeejadi Yoga is having anti-toxic action against all types of bites based on their pharmacological action. We need to explore many more Vishaghna Yogas which our Ancient Acharyas have mentioned in our classics. This would make easier to combat various types of Poisoning both animate and in-animate.

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### Cite this article as:

Rukma C.K. A review article on anti-toxic action of Sireeshabeejadi yoga. Int. J. Res. Ayurveda Pharm. 2020;11(4):249-253 <http://dx.doi.org/10.7897/2277-4343.1104128>

Source of support: Nil, Conflict of interest: None Declared

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