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REVIEW ARTICLE

# A REVIEW OF LODHRASEVYADI YOGA IN THE TREATMENT OF LOOTAVISHA

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**ABSTRACT**

*Lootavisha* or spider poisoning is coming under the group of *jangama visha* according to Ayurveda. In the classics, *lootavisha* has been considered as difficult to treat due to its difficulty in diagnosis and severity in nature. Among the clinical features it includes both local and systemic manifestations. In this regard so many medicinal preparations have also been described in the classics. *Lodhrasevyadi yoga* is one such a medicine described by Acharya Vagbhata. In the clinical practice it is found to be very effective for the treatment of any kind of *lootavisha*. As it contains maximum *sheeta veerya* drugs having *madhura rasa* and *kapha-pittahara* property, it can also be used in other dermatological conditions with *kapha-pitta* predominancy effectively. Again, as all the drugs of this yoga are easily available and not controversial, it can be prepared easily and can be administered in any form to treat any type of spider bite.

**Keywords:** *Lootavisha, Lodhrasevyadi yoga*, spider poisoning

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**INTRODUCTION:**

*Agadatantra* is defined as a section of toxicology that deals with snake bites, food poisoning, dog bites, insect bites etc. It is one of the eight main branches of Ayurvedic system of medicine. Literally *gada* means a disease and *agada* means any agent which makes the body free from disease, however the term '*agada'* is used specifically for the branch of medicine that deals with toxicology, the description of the different types of poisons and their antidotes. In our classics, based on the source, the poison is classified as animal origin (*jangama visha*) and plant origin (*sthavara visha*) and *lootavisha* or spider poisoning comes under animal origin. In modern science also, among the numerous varieties of spiders many are poisonous which can cause severe signs and symptoms including death of a person. Acharya Sushruta considers *lootavisha* as very dangerous due to the difficulty in diagnosis and treatment [1].

**EPIDEMIOLOGY**

There are more than 30,000 species of spiders, most of which are venomous, but they cannot inflict serious bites due to delicate mouthparts and short fangs. The differential diagnosis of spider bites is extensive and includes other arthropod bites, skin infections, and exposure to chemical or physical agents. However, approximately 200 species from 20 genera of spiders worldwide can cause severe human envenomings, with dermonecrosis, systemic toxicity, and death. The epidemiologic analysis of spider bites is confounded by several factors including the extensive differential diagnosis of dermal bite-like lesions, suspected versus definite spider bites, and precise identification of biting spiders by arachnologists [2]. To date, most studies of spider bites have been retrospective, bites have not been confirmed by eyewitnesses, and spiders have not been kept alive for identification, or identified incorrectly. Only prospective studies of definitely confirmed spider bites with expert identification of the envenoming species will contribute to the development of evidence-based methods to precisely describe venomous spiders and the outcomes of their bites [2].

***LOOTAVISHA***

Spider poisoning is very common in the clinical practice of *Agadatantra*. Both systemic as well as dermatological signs and symptoms can be seen in the case of *lootavisha*. The general features of spider bites include characteristic blister and oedema, severe pain, fever, erythema, quick suppuration, exudation and gangrene [3]. In our classics it has been told that the spiders are able to exert their venom through different parts of their body. Sushruta identifies about seven such venomous principles like saliva, teeth, faeces, urine, semen, nails and menstrual blood. Vagbhata

adds expired air in this list as eighth venomous principle. In the classics, not only these different factors have been mentioned for poisoning but also, the signs and symptoms, produced by envenomation through each and every medium, are also described in detail. But the envenomation through these factors is not yet established according to modern parlance.

**Signs and symptoms:** In Ayurveda, the signs and symptoms produced by the spiders have been described in detail from various viewpoints viz. according to *doshas*, as per the *adhisthanas*, according to *vegas*, according to the potency etc. Overall, the signs and symptoms of *lootavisha* can be divided mainly into two types i.e. General and Specific.

General symptoms of *lootavisha*, irrespective of their species, are noted such as presence of papules, nodules, pustules, erythema, itching and indurate areas along with large soft, pale oedematous lesion. Vagbhata pictures the general symptoms very clearly. They are – reddish, blackish or pale soft indurated area resembling the *dadru* and *mandala kushtha*, the middle portion of which is blackish or pale and having the boundaries clearly demarcated with net like appearance. It will be spreading in nature and features like severe pain, oedema, burning sensation, fever, sudden decaying tendency, weeping, cracking etc can be seen associated. The spreading of lesions to other parts of the body is possible wherever the oozing fluid gets a contact [3]. The specific symptoms of *lootavisha* has been narrated according to the individual type of the spider and this has very lesser significance in the clinical practice as it is very difficult to differentiate the type of the specific spider and its bite.

**Day wise manifestation of symptoms in *Lootavisha*:** According to the *acharyas* spider poisoning will remain symptomless till half of the first day. With the increase of time it will be worsen and finally if proper treatment is not provided it will be fatal on the seventh day. The day wise manifestations of *lootavisha* have been given in the table no. 1 [4].

**Table no. 1 Day wise manifestations of *Lootavish***

| Day | Symptoms |
|---|---|
| 1st | Unsteady, mild itching and pain, needle mark like appearance without any manifested colour |
| 2nd | Elevation at the edges, gets covered with numerous eruptions, well manifested colour, depressed in the center, itching and appears like a tumor. |
| 3rd | Fever, horripilation, red coloured rashes, bleeding from the hair follicles, severe pricking |

| | |
|---|---|
| | type of pain |
| 4th | Profound swelling, hotness, dyspnoea, dizziness |
| 5th | Symptoms of poisoning |
| 6th | Affects the vital centers |
| 7th | Death |

**Dermatological Manifestations of Lootavisha:** From the signs and symptoms of lootavisha, it is very clear that the dermatological manifestations are the mostly marked features along with other systemic manifestations. Practically also many times physicians rely upon the specific dermatological features to diagnose lootavisha. Skin eruptions are one of the surest diagnostic measures of lootavisha. They are multi sized and multi shaped. These eruptions usually mimics blisters filled with pus, or watery fluid spreading from the site of the bite. It involves large areas of body. One of the salient features of skin lesion of lootavisha is that the lesions are not sharply confined to the site of bite only. It possess a spreading nature, there develops circular patches around the region of Damsha. Often it follows the pattern of dadru kushtha. There is no definite colour to the area affected; yet it may be whitish, blackish, yellowish, reddish or brownish. If one observes this range of colours through the eyes of Dosha, an assumption can be made as follows. Lootas of Kaphaja nature cause for whitish colour, Pittaja either yellowish or red, and Vataja lootas bring about brownish or blackish colour to the site of the bite.

Lesions are often slightly raised and soft, central zone of the site will be blackish or brownish and the boundaries lined. *Damsha* may undergo immediate *paaka* and there will be enough exudation. Necrosis and putrefaction also follows. Exudatory fluid of *loota damsha* is also highly venomous and capable of producing ulcers in the intact skin if get contacted. Oedema is an also an important manifestation met within *lootavisha*. It appears reddish or brownish and soft in consistency. Itching is another feature encountered in skin lesion. This may be an allergic response by the body towards antigen of spider venom.

**Modern aspect:** In modern system of medicine, the study of the injury resulting from the bite of a spider is known as arachnidism. Most of these spider bites give rise to mild symptoms around the area of the bite. Rarely they may produce a necrotic skin, wound or severe pain.

A primary concern of the bite of a spider is the effect of its venom. A spider

envenomation occurs whenever a spider injects venom into the skin. Not all spider bites involve injection of venom, and the amount of venom injected can vary based on the type of spider and the circumstances of the encounter.

Spider venom, like snakebite venom, is generally either neurotoxic (attacking the nervous system) or cytotoxic (necrotic) (attacking tissues surrounding the bite). Generally, it is the web dwellers that have neurotoxic venom and the non-web dwellers have the cytotoxic venom.

Cytotoxic venom affects the cellular tissue usually restricted to the area of the bite but can spread. The bite is at first painless with symptoms developing about 2-8 hours after the bite. It starts by resembling a mosquito sting, becoming more painful and swollen. Eventually it ulcerates into a large surface lesion (up to 10 centimeters) that will require medical attention. Treatment with antibiotics might be required to treat secondary infections. The wound will take between two and 4 weeks to heal but the lesion might take months to improve. In some cases ugly scarring might occur that might require plastic surgery.

Neurotoxic venom affects the neuromuscular junctions, and bite symptoms involving this type of venom are: Severe pain in the chest and abdomen, Anxiety, raised blood pressure, increased pulse rate, Breathing difficulties and heart palpitations, Nausea and vomiting, Sweating, excessive salivation and watery eyes. The body temperature could either fall or rise above normal and a rash might develop [5].

**Management:** The management of *lootavisha* as per the ancient classics of Ayurveda as well as on the line of traditional systems reveals that the treatment of *lootavisha* can be classified into external and internal medicaments. Especially Acharya Sushruta has described ten different methods for treating *lootavisha* namely- *Nasya* (*Avapeedaka*), *Anjana*, *Lepana*, *Paana*, *Dhoopana*, *Kavalagraha*, *Vamana*, *Virechana* and *Raktamoksha* [6]. In this aspect plenty of medicinal preparations have been described in the classics.

***LODHRASEVYADI YOGA:*** *Lodhrasevyadi yoga* is one of these formulations explained in Ashtanga Hridaya in relation to the treatment of *lootavisha*. Vagbhata places this *yoga* superior to all other formulations proclaimed its effectiveness in the treatment of *lootavisha* [7]. It is said to be effective against all types of spiders and exhibits antivenomous activity internally and externally. Physicians of Kerala practice this combination extensively in the case of spider bites. It consists of ten drugs (table no. 2) and the pharmacodynamics of

the individual drugs are mentioned in table no. 3

**Table no. 2 Ingredient of *Lodhrasevyadi yoga***

| | **Name of the drug** | **Latin name** | **Family** | **Parts used in the *yoga*** |
|---|---|---|---|---|
| 1. | *Lodhra* [8] | *Symplocos racemosa Roxb.* | Styraceae | Bark |
| 2. | *Sevya (Usheera)* [9] | *Vetiveria zizanoides (Linn.) Nash* | Graminae | Root |
| 3. | *Padmaka* [10] | *Prunus cerasodies D Don.* | Rosaceae | Bark |
| 4. | *Padmarenu* [11] (seeds of lotus) | *Nelumbo nucifera Gaertn.* | Nymphaceae | Seeds |
| 5. | *Kaliyakhya* [12] (*Daruharidra*) | *Berberis aristata DC.* | Berberidaceae | Stem |
| 6. | *Chandana* [13] | *Santalum album Linn.* | Santalaceae | Pith |
| 7. | *Raktachandana* [14] | *Pterocarpus santalinus Linn.* | Fabaceae | Pith |
| 8. | *Kantapushpa* (*Priyangu*) [15] | *Callicarpa macrophyla Vahl.* | Verbanaceae | Flower |
| 9. | *Dugdhinika (Alabu)* [16] | *Lagenaria vulgaris (Mol) Standl.* | Cucurbitaceae | Fruit |
| 10. | *Mrunala* [17] (stem of lotus) | *Nelumbo nucifera Gaertn.* | Nymphaceae | Stem |

**Table no. 3: Pharmacodynamics of *Lodhrasevyadi yoga***

| **Drug name** | ***Rasa*** | ***Guna*** | ***Veerya*** | ***Vipaka*** |
|---|---|---|---|---|
| *Lodhra* [8] | *Kashaya, tikta* | *Laghu, Ruksha* | *Sheeta* | *Katu* |
| *Sevya* (*Usheera*) [9] | *Tikta, madhura* | *Laghu, Ruksha* | *Sheeta* | *Katu* |
| *Padmaka* [10] | *Kashaya, tikta, madhura* | *Ruksha* | *Sheeta* | *Katu* |
| *Padmarenu* [11] | *Kashaya, tikta, madhura* | *Laghu, Snigdha, Pichchila* | *Sheeta* | *Madhura* |
| *Kaliyakhya* (*Daruharidra*) [12] | *Kashaya, tikta* | *Laghu, Ruksha* | *Ushna* | *Katu* |

| | | | | |
|---|---|---|---|---|
| *Chandana* [13] | *Tikta, madhura* | *Laghu, Ruksha* | *Sheeta* | *Katu* |
| *Raktachandana* [14] | *Tikta, Madhura* | *Guru, Ruksha* | *Sheeta* | *Katu* |
| *Kantapushpa* (*Priyangu*) [15] | *Tikta, Kashaya, Madhura* | *Guru, Ruksha* | *Sheeta* | *Katu* |
| *Dugdhinika* (*Alabu*) [16] | *Tikta* | *Laghu, Ruksha* | *Sheeta* | *Katu* |
| *Mrunala* [17] | *Kashaya, Tikta, Madhura* | *Laghu, Snigdha, Pichchila* | *Sheeta* | *Madhura* |

Most of the above mentioned drugs are *sheeta veerya* in nature and all are *kapha pittahara* in action. Apart from these properties when we scrutinize these drugs the certain qualities which have the beneficial effect in various dermatological manifestations caused by the spider bite are listed as follows:

- *Lodhra* (*Symplocos racemosa Roxb.*) – It is a *Vishaghna* (anti-poison) drug and when consumed internally it helps to detoxify the blood and when used externally it is good for skin diseases, swelling, bleeding wounds and ulcers [18].
- *Usheera* (*Vetiveria zizanoides (Linn.) Nash*) – It is *Varnya* (complexion enhancer), *Kushthaghna* (removes skin ailments), *rakta prasadaka* (purifies the blood). Useful in skin conditions, enhances complexion, haemostatic and cardio-protective [19].
- *Padmaka* (*Prunus cerasodies D Don.*) – It is a *Vishaghna* (anti poison), *Kushthaghna* (skin conditions), *Kandughna* (anti pruritic), *Rakta stambhaka* (stops bleeding). Internally it acts as an analgesic, cardiotonic, antidermatosis and externally when applied it acts as anti pruritic, complexion enhancer [20].
- *Padmarenu* (seeds of *Nelumbo nucifera Gaertn.*) – The seeds of lotus contain Kaempferol, a flavonoid known for its anti inflammatory properties [21].
- *Daruharidra* (*Berberis aristata DC.*) – It is *Vranashodhaka* (heals wounds), *vedanashtapana* (analgesic), *varnya* (improves complexion) and is very useful as anti-inflammatory and good for healing wounds and skin disorders [22].
- *Chandana* (*Santalum album Linn.*) – It is *Vishaghna* (anti poison), *Varnya* (improves complexion), *Twachya* (good

for skin), *Rakta shodhaka* (blood cleanser) and when used externally it is good for skin disorders and burns [23].

- *Rakta chandana* (*Pterocarpus santalinus Linn.*) – It has antiseptic and anti-bacterial activity and also has detoxifying property [24].
- *Priyangu* (*Callicarpa macrophyla Vahl.*) – It is *Vranaropana* (wound healing), *Rakta shodhaka* (blood cleanser) [25]
- *Alabu* (*Lagenaria vulgaris (Mol) Standl.*) – It is a *Vishaghna* (anti poison) drug [16].
- *Mrunala* (stem of *Nelumbo nucifera Gaertn.*) – When used externally it has the property of anti-inflammatory [26].

**DISCUSSION:**

How a medicinal *yoga* acts that depends on many factors viz. *rasa*, *guna*, *veerya*, *vipaka*, *karma*, *doshaghnata* etc. of individual drugs and above all these, the *prabhava* of the whole *yoga* itself. In *Lodhrasevyadi yoga*, most of the drugs are *sheeta veerya* in nature and have *kapha pittahara* property, thus capable of antagonizing the adverse effects of *visha* which is *ushna* by nature.

The features of *lootavisha* clearly show *pitta* and *kapha dosha* predominancy. The presence of the features viz. *raga, daha, jwara, paka* etc. indicate the predominance of *pitta dosha* and the features like *pidaka, kandu, shopha* etc. indicate the predominance of *kapha dosha*. In *Lodhrasevyadi yoga*, all the drugs possess *tikta rasa* and *pitta-kaphahara* property. So it can be used effectively against all the species of spiders.

Acharya Sushruta has mentioned ten different treatment modalities for the treatment of *lootavisha*. From the indication of *Lodhrasevyadi yoga* it is clear that it can be used in various therapeutic procedures such as *seka, anjana, lepa, dhoopana, pana* etc [6] according to the condition of the patient. Again, it can be made into various formulations such as *kashaya, choorna, ghrita* etc.

*Lodhrasevyadi yoga*, in total, is anti-inflammatory, analgesic, antiseptic in action and also it is *pitta-kaphahara, dahaprashamana* (reduces the burning sensation), *kusthahara* (alleviates skin conditions), *twak doshahara* and *varnya* (enhances complexion).

In this formulation maximum drugs have effective results when used externally. So the synergistic action of these drugs can be assumed to pacify the symptoms of *lootavisha*, where many local symptoms viz. *daha, raga, paka* etc predominates.

**CONCLUSION:**

*Lootavisha* is quite common in clinical practice of *Agadatantra*. Careful observation of the management of *Lootavisha* as per the ancient classics of Ayurveda as well as in the line of

traditional systems reveals that treatment of *Lootavisha* can be classified into external and internal medicaments. *Lodhrasevyadi yoga* is a *Lootavishaghna yoga* explained in the classic Ashtanga Hridaya of Vagbhata. Vagbhata places this *yoga* superior to all other *agada* proclaimed effective against all types of spiders and can be used internally and externally as well. The *kapha pitta* predominency is seen in the case of *lootavisha* and as this *yoga* is mainly *kapha pittahara* along with its anti-inflammatory, antiseptic, analgesic properties it is considered to be the drug of choice in the case of the spider bite.

**REFERENCES**

1. Yadavji Trikamji Acharya (editor). Sushruta Samhita of Sushruta, Kalpa sthana, chapter 8, verse no. 75. 1st edition, reprint, Varanasi; Chaukhamba Sanskrit Samsthan; 2009; 591
2. Diaz James H. The American Journal of Tropical Medicine and Hygiene. [Online]. Available from www.ajtmh.org/content/71/2/239.full [accessed 4 July 2015]. In-text citation:
3. Pt. Hari Sadashiva Shashtri Paradakara (editor). Ashtanga Hridaya of Vagbhata, Uttarasthana, Chapter 37, verse no. 55-57. 1st edition, reprint, Varanasi; Chaukhamba Surabharti Prakashan; 2014; 918
4. Pt. Hari Sadashiva Shashtri Paradakara (editor). Ashtanga Hridaya of Vagbhata, Uttarasthana, Chapter 37, verse no. 62-65. 1st edition, reprint, Varanasi; Chaukhamba Surabharti Prakashan; 2014; 918, 919
5. Unknown. Wikipedia, The Free Encyclopedia – Spider bite. [Online] Available from: https://en.wikipedia.org/wiki/spider_bite [accessed 24 July 2015] in-text citation
6. Yadavji Trikamji Acharya (editor). Sushruta Samhita of Sushruta, Kalpa sthana, chapter 8, verse no. 134. 1st edition, reprint, Varanasi; Chaukhamba Sanskrit Samsthan; 2009; 593
7. Pt. Hari Sadashiva Shashtri Paradakara (editor). Ashtanga Hridaya of Vagbhata, Uttarasthana, Chapter 37, verse no. 86. 1st edition, reprint, Varanasi; Chaukhamba Surbharti Prakashan; 2014; 920
8. Sharma P.V. Dravyaguna Vijnana Vol.II.1st edition, Varanasi; Chaukhamba Bharti Academy; 2005; 616
9. Sharma P.V. Dravyaguna Vijnana Vol.II.1st edition, Varanasi; Chaukhamba Bharti Academy; 2005; 114
10. Sharma P.V. Dravyaguna Vijnana Vol.II.1st edition, Varanasi; Chaukhamba Bharti Academy; 2005; 43
11. Sharma P.V. Dravyaguna Vijnana Vol.II.1st edition, Varanasi; Chaukhamba Bharti Academy; 2005; 582
12. Sharma P.V. Dravyaguna Vijnana Vol.II.1st edition, Varanasi; Chaukhamba Bharti Academy; 2005; 537
13. Sharma P.V. Dravyaguna Vijnana Vol.II.1st edition, Varanasi; Chaukhamba Bharti Academy; 2005; 715
14. Sharma P.V. Dravyaguna Vijnana Vol.II.1st edition, Varanasi; Chaukhamba Bharti Academy; 2005; 718
15. Sharma P.V. Dravyaguna Vijnana Vol.II.1st edition, Varanasi; Chaukhamba Bharti Academy; 2005; 781
16. Sharma P.V. Dravyaguna Vijnana Vol.II.1st edition, Varanasi; Chaukhamba Bharti Academy; 2005; 379

17. Sharma P.V. Dravyaguna Vijnana Vol.II.1st edition, Varanasi; Chaukhamba Bharti Academy; 2005; 582
18. Vostermans John, Ayurwiki [Online] from: www.ayurwiki.info/wiki/lodhra [accessed 24 July 2015] in-text citation
19. Vostermans John, Ayurwiki [Online] from: www.ayurwiki.info/wiki/ushira [accessed 24 July 2015] in-text citation
20. Vostermans John, Ayurwiki [Online] from: www.ayurwiki.info/wiki/padmaka [accessed 24 July 2015] in-text citation
21. Unknown. Lotus seed [Online] available from: www.home-remedies-for-you.com/herbs/lotus-seed.html [accessed 24 July 2015] in-text citation
22. Vostermans John, Ayurwiki [Online] from: www.ayurwiki.info/wiki/daruharidra [accessed 24 July 2015] in-text citation
23. Vostermans John, Ayurwiki [Online] from: www.ayurwiki.info/wiki/chandana [accessed 24 July 2015] in-text citation
24. Unknown. Benefits of red sandalwood for skin [Online] available from http://uae.makeupandbeauty.com/benefits-red-sandalwood-skin/ [accessed 24 July 2015] in-text citation
25. Vostermans John, Ayurwiki [Online] from: www.ayurwiki.info/wiki/priyangu [accessed 24 July 2015] in-text citation
26. Unknown. Lotus Stem Herb Uses, Benefits, Cures, Side effects, Nutrients [Online] available from http://herbpathy.com/Uses-and-Benefits-of-Lotus-Stem-Cid4729 [accessed 24 July 2015] in-text citation

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