

A Critical Appraisal of Traditional Treatment Modalities and Their Therapeutic Implications of Lootavisha

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ABSTRACT:

Lootavisha, a type of poisoning primarily caused by various types of spiders, is recognized in Ayurveda as a significant health threat, requiring specialized treatment to mitigate its toxic effects. This critical review delves into the traditional Ayurvedic approaches for managing Lootavisha, highlighting various therapeutic interventions such as Agad Yoga, Anjan, Nasya, Vamana, Virechana, Raktamokshana, and Parisechana. Agad Yoga formulations, consisting of herbal and mineral ingredients, are primarily used for detoxification and neutralization of the poison. Anjan (eye application) and Nasya (nasal therapy) aim to clear toxins from the head and sense organs, while Vamana (therapeutic emesis) and Virechana (therapeutic purgation) help eliminate toxins from the gastrointestinal system. Raktamokshana (bloodletting) is employed to expel impure blood, reducing systemic toxicity, while Parisechana involves the external pouring of medicated liquids to cool and detoxify the body locally. These interventions are designed to restore dosha balance and support the body's natural detoxification processes. Through a systematic examination of classical Ayurvedic texts and contemporary research, this review provides a comprehensive understanding of Lootavisha treatment, demonstrating Ayurveda's holistic and multifaceted approach to managing poisoning.

KEYWORDS: Ayurveda, Lootavisha, Agadtantra, Spiderbite, Toxicology.

I. INTRODUCTION:

Ayurveda, an ancient Indian system of medicine, comprises eight primary branches, one of which is Agad Tantra, focusing on toxicology and its management. In the "Kalpasthana" section of the Sushruta Samhita^[1], Acharya Sushruta, along with Acharya Vagbhata in the "Uttaratantra" of Ashtanga Hridaya^[2] and other classical texts, provides detailed insights into the origins of various poisons, including spider venom

(Lootavisha). Lootavisha, a term rooted in Ayurvedic texts, refers to a specific category of toxic conditions resulting from the bite or sting of poisonous insects, particularly spiders. In classical Ayurvedic literature, these toxicities are detailed with clinical manifestations that align with modern descriptions of envenomation, including symptoms such as pain, inflammation, and systemic complications. The treatment of Lootavisha in Ayurveda is holistic, involving a combination of internal and external therapeutic approaches aimed at detoxification, symptom management, and restoring systemic balance. Spiders, as carnivorous arthropods, inhabit human environments, and of the more than 30,000 known species, many are venomous. A spider bite can result in localized tissue damage and ulceration at the site of the bite, which may progressively extend to the affected limb. The initial presentation typically includes severe pain and swelling, often accompanied by muscle spasms and tremors. These symptoms can spread to the muscles of the back, shoulders, thighs, legs, arms, and face. Systemic manifestations may include nausea, vomiting, abdominal cramps, respiratory difficulty, hypertension, tachycardia, restlessness, irritability, excessive sweating, and swollen eyelids. Potential complications arising from the bite include muscle cramps, intravascular haemolysis, acute kidney failure, and neurotoxicity. Agad Tantra offers a comprehensive framework for understanding spiders, categorizing their species, describing the clinical manifestations of their venom, and detailing treatment protocols. Acharya Sushruta classified spider venom under "Jangama Visha" and recognized 16 distinct types of spiders.

Ayurveda approaches toxic conditions through its unique principles of dosha (biological energies), dhatu (tissues), and agni (digestive fire). The treatment protocols for Lootavisha emphasize the neutralization of the poison (visha) using herbal formulations, external applications, and purification therapies like Panchakarma,

complemented by dietary and lifestyle modifications. While modern medicine has advanced in managing toxicities with antivenoms and supportive care, Ayurveda provides a natural and integrative approach, offering potential benefits for both acute and chronic management of such cases. This article explores the Ayurvedic approach to Lootavisha, examining classical references, therapeutic interventions, and the rationale behind these treatments. Additionally, it aims to bridge the traditional knowledge with contemporary scientific understanding, assessing the efficacy of Ayurvedic remedies in the treatment of toxic insect bites, while highlighting the relevance of ancient practices in modern therapeutic contexts.

According to Acharya Sushruta, the origin of Loota (spiders) is attributed to a mythological event where sweat from the forehead of the sage Vasishta Maharshi fell onto the grass, leading to their creation. Various texts, including those by Acharya Sushruta, describe differing numbers of Loota species, such as 16 in Sushruta Samhita, 16 in Ashtanga Hridaya, and references to 28, 1000, or innumerable species in other sources. Based on the severity of the poisoning, Acharya Sushruta also noted fatal periods of 7, 10, and 15 days for severe, moderate, and mild cases, respectively^[3]. Loota venom can be transmitted through bites and various secretions such as faeces, urine, semen, saliva, nails, menstrual blood, and breath. Poisoning may also occur indirectly when clothes or other items become contaminated with these secretions.^[4,5]

The symptoms of Loota poisoning are explained according to the predominance of specific Doshas, the site of poisoning, and the progression of symptoms over time. General signs include swelling that resembles urticaria, which may appear pale, blackish, reddish, yellowish, or greyish, and is often soft, elevated, with a black or blue centre. There may be vesicles around the site, giving it a sieve-like appearance. The swelling typically spreads and is accompanied by different types of pain and fever. The bite site may rapidly progress toward tissue necrosis, leading to exudation, putrefaction, and shedding of deeper tissues.^[6] The Dosha involvement in Loota poisoning is predominantly Pitta-Kapha.^[7] Symptoms of Agneya Loota (fire-dominant spider) poisoning include burning sensation, thirst, fever, delirium, high temperature, vesicles, reddish and yellow exudation, and swelling resembling a grape.

^[8] In contrast, Kaphaja Loota poisoning presents with hard, pale swelling resembling the Parushaka fruit, increased sleep, chills, fever, cough, and severe itching.^[9]

Acharya Vagbhata categorized Loota under the broader class of Keeta (insects), indicating that they share characteristics with other insect venoms.^[10] Treatment strategies include Shodhana (purification) therapies such as vomiting, purgation, and nasal drops. Local treatments include incision, heat application, collyrium, massage, application of medicinal paste, medicated liquids for drinking or site washing, fumigation, and bloodletting.

Classification of Loota:

1. Based on Prognosis^[11]

- a. Kruchasadhya Loota-8
- b. Asadhya Loota-8

2. Based on Doshaprakopa

- a. Vatika
- b. Paittika
- c. Slesmika
- d. Sannipatika

3. Based on Visaprabhava^[12]

- a. **Mild:** Death occurs within 15 days
- b. **Moderate:** Death occurs within 7 to 10 days
- c. **Severe/Violent:** Death occurs within 7 days

4. Site of Poison^[13]

- a. Shwas (breath)
- b. Damshttra (fangs)
- c. Purisha (Fecal matter)
- d. Mutra (Urine)
- e. Shukra (Semen)
- f. Lalastrava (Saliva)
- g. Nakh (nails)
- h. Aartava (Menstrual fluid)

General Symptoms of poisoning:

- 1) Round shape rashes present white black, red, yellow or bluish in color, is soft elevated
- 2) Its center is black or blue and its edges resemble like net.
- 3) It spreads like visarpa, swollen with burning sensation, painful, fever, ulceration, exudation, sloughing, destruction of muscle tissue.^[14]

Specific Symptoms:

Table 1: Based on Doshavitiation ^[15]

Sr. No.	Loota Types	Symptoms
a.	Vayavya Loota	Roughness in swelling, blue in color, joint pain
b.	Agneya Loota	Burning sensation, thirst, vesicles, fever
c.	Saumya Loota	A firm, whitish swelling accompanied by pruritus and mild pain
d.	Sannipatik Loota	Burning sensation throughout the body, indicates the involvement of all three doshas (Vata, Pitta, and Kapha) in the pathological process.

According to Adhithana^[16]

Table 2: Different symptoms of Lootavisha according to different adhithan

Sr.No	Adhithana	Symptoms
a.	Breath	Swelling associated with fever and burning Sensation
b.	Teeth	Swelling associated with pricking pain and Burning sensation
c.	Excreta	Foul smell swelling, burning sensation, it ching, Pricking sensation
d.	Urine	Swelling has red colored edges, black center, Emits foul smell, burning sensation
e.	Semen	Tumor is hard and painful
f.	Saliva	Elevated rash, mild pain, it ching and soft to touch
g.	Nails	Burning sensation, it ching, eruption
h.	Menstrual Blood	Eruption red in color resembles like garland

Table 3: Daywise Symptoms of Spidertoxin ^[17]

Sr.No.	Days	Symptoms
a.	1 st	No discoloration over the affected part Slight it ching, pain
b.	2 nd	Raised edges, surrounded by eruptions Change in color of Skin, It ching, depressed in the center
c.	3 rd	Fever, red patches, horripilation's, pain, discharge From hair follicles
d.	4 th	Profound swelling, dyspnea, giddiness
e.	5 th	Gives rise to symptoms of poisoning related to doshas
f.	6 th	Poison in vades all vital organs
g.	7 th	Destroys life

Table 4: Kricchrasadhya and Asadhya loota^[18]

Sr.No.	Type of loota	Symptoms
a.	Kricchrasadhya Loota Lakshan	Pain, it ching at the site of bite, headache
b.	Asadhya Loota Lakshan	Bleeding, fever, burning sensation, diarrhea and Disorder due to the concentrated action of all the three deranged dosas of the body

Treatment:

1. Chedana(Incision)^[19]

Chedana Karma in LootaVishaChikitsa (treatment of spider or scorpion poison) in Ayurveda refers to the surgical excision or removal of the affected tissue to prevent the spread of the poison. It is considered an essential part of the treatment when the poison has localized deeply, aiming to eliminate the contaminated area and promote healing.

2. Agnikarma(Cauterization)^[20]

The bite site is cauterized with heated ston eetc.

Contraindication:

- a. Ifthe bite site is very rough, hair is damaged, located in vital parts and joint and is spread to all parts
- b. When the bite is pittapredominant

3. Lepana(Coating)^[21]

- a. Paste of Agada, Madhu and Saindhavaare applied
- b. Paste of Pippali, Shlesmantaka, Akshaisapplied

4. Parishechan^[22]

In Ayurveda, Parishechana Karma involves the therapeutic pouring of medicated liquids over the affected body part to alleviate symptoms of Lootavisha. This treatment helps in cooling, detoxifying, and soothing the aggravated doshas, aiding in the recovery from the toxic effects.

5. Raktamokshan(Bloodletting)^[23]

Bloodletting from the affected area should be performed using Shringa (horn). After Raktamokshana (bloodletting), the area should be irrigated with a mixture of ghee and milk for therapeutic benefits.

6. Vaman(Emesis)^[24]

Purification is carried out using Vishnashak Vaman, a procedure for eliminating toxins. Excessive Kapha is expelled with the aid of Yashtimadhu (liquorice), Madan (emetic nut), Ankol (alangium), Jaalini (ridged gourd), and Saindhava (rock salt), all administered in a Kanjika (fermented rice water) base.

7. Virechan(Purgation)^[25]

Purgation is done by giving Triphala,Trivritta and Nilini.

8. Ghrita(ghee)^[26]

Ghrita intake isusefulinpoisoning.

9. Agada

- a: Padmakaagad^[27]
- b: Champakaagad^[28]
- c: Gandhamadnagad^[29]
- d: MandaaraAgada^[30]
- e: LodhraadiYoga^[31]
- f. Hreeberadi^[32]
- g Rajanyaadi^[33]
- h. Vilvaadi^[34]
- i. Gomayras,sugar,ghee,Madhu^[35]

10. Nasya (Nasal Therapy)

- a. Nasal administration of medication is performed using the fresh juice of Tulsi (Ocimum sanctum).
- b. Nasal therapy is administered using formulations made from Shyama, Yavaphal (Jujube fruit), and Shirish (Albizia lebbeck).^[36]

11. Anjana (Collyrium Application):

Collyrium is prepared from the leaves of Surasa (Ocimum tenuiflorum), Vyosha (a combination of dry ginger, black pepper, and long pepper), the roots of Bilva (Aegle marmelos), Surahvaya (Barleria prionitis), and Haridra (Curcuma longa), mixed with goat's urine.^[37]

Table 5: Specific Management:

Sr.No	Types	Management
1.	Trimandala	Compound prepared byarkaroot, rajani nakuli, prsnaparni ^[38]
2.	Shweta	A gada prepared from chandana, rasna, Ela, Kustha, Nalanda ^[39]
3.	Kapila	A gada prepared by padmaka, kustha, ela, karanja, durva, bramhi, arkaparni, apamarga, Sthira ^[40]
4.	Paitika	Agada composed by kutaja, kadambha, kakumbha bark ^[41]
5.	Ala-visa	A gada composed of Priyangu, kustha, satapushpa, sprouts of pippala ^[42]
6.	Mutra-visa	Manasila, Ela, yastimadhu, kustha, chandana, padmaka ^[43]
7.	Rakta	Agada of toya, chandana, ushira, padmaka, barkof Arjuna and amrtaka ^[44]
8.	Kasana	A gada of toya, chandana, ushira, padmaka, bark of Arjunaand amrtaka

II. DISCUSSION:

The treatment of Lootavisha, or rodent poison exposure, according to Ayurveda, integrates a multifaceted therapeutic approach, targeting the detoxification and pacification of aggravated doshas caused by the poison. The critical Ayurvedic interventions include the use of Agad Yogas (specific antidotes), Anjana (eye applications), Nasya (nasal administration), Vamana (therapeutic emesis), Virechana (therapeutic purgation), Raktamokshana (bloodletting), and Parisechana (medicated irrigation). Agad Yogas, which are medicinal formulations specifically designed for counteracting poisons, form the core of Ayurvedic toxicology (Visha Chikitsa). These yogas, typically composed of various herbs with detoxifying properties, work through multiple mechanisms. They neutralize the poison, enhance elimination of toxins, and promote tissue healing. For Lootavisha, formulations such as Mahagada or Dashanga Agada are recommended, which have potent vishagna (anti-toxic) properties. These preparations are administered orally or applied topically,

depending on the route and nature of the poison. They are effective in reversing both local and systemic symptoms of rodent poisoning, including inflammation, swelling, and febrile conditions.

Anjana and Nasya are critical for eliminating toxins from the head and neck region, particularly targeting the poison's effects on sensory organs. Anjana involves applying medicated paste to the eyes, helping in alleviating vision disturbances or swelling that may arise from rodent bites or toxin spread. Nasya, on the other hand, is administered via the nasal route, considered the gateway to the brain. By clearing the nasal passages and sinuses, Nasya effectively reduces the central effects of toxins, especially those causing neurological symptoms such as dizziness, headache, or disorientation. Vamana and Virechana, which are therapeutic emesis and purgation respectively, serve to eliminate the poison from the gastrointestinal tract. Vamana is generally performed early in the treatment to remove any ingested or circulating toxins via the upper digestive tract, focusing on Kapha dosha. It is followed by Virechana, which clears toxins

through the bowels, specifically balancing Pitta dosha. Together, these two Panchakarma therapies provide a comprehensive detox by purging toxins from the digestive system, where rodent poison is often metabolized.

Raktamokshana, or bloodletting, is another powerful intervention used to remove toxins directly from the bloodstream. This method is particularly beneficial when the poison spreads systemically, causing vitiation of Rakta Dhatu (blood tissue) and leading to conditions like fever, skin disorders, or internal haemorrhage. Different methods of Raktamokshana, including Jalaukavacharana (leech therapy) and Siravedha (venipuncture), are employed depending on the severity and localization of the poison. This technique ensures that poisoned or vitiated blood is expelled, reducing systemic toxicity and promoting healing.

Lastly, Parisechana Karma plays a pivotal role in local management. In this procedure, medicated liquids are poured over the site of the bite or affected area to cool and detoxify. The herbs used in Parisechana have Shita Virya (cooling potency) and Vishagna properties, helping to neutralize the poison, reduce inflammation, and support tissue regeneration. It acts both as a cleansing measure and a soothing therapy to relieve localized burning, pain, and swelling.

Collectively, the multi-dimensional approach of Ayurveda in treating Lootavisha underscores its comprehensive nature. The combination of internal and external therapies ensures thorough detoxification, symptom management, and recovery. Unlike modern medicine, which often relies heavily on antivenoms or antidotes, Ayurveda's Agad Tantra offers a personalized treatment approach based on the dosha involvement, the nature of the poison, and the individual's constitution. This traditional practice highlights the importance of harmonizing the body's natural balance while addressing the acute toxic effects of rodent exposure.

III. CONCLUSION:

In conclusion, the Ayurvedic approach to treating Lootavisha (rodent poisoning) through a combination of therapies, including Agad Yogas, Anjan Nasya, Vamana, Virechana, Raktamokshana, and Parisechana, offers a holistic and multifaceted strategy for detoxification and healing. These treatments, grounded in classical texts and focusing on eliminating toxins, restoring dosha balance, and rejuvenating affected tissues,

demonstrate Ayurveda's comprehensive potential in managing poison-related conditions. Further clinical research is encouraged to validate and integrate these therapies with modern medical protocols for enhanced outcomes in toxicology.

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