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Case Report

Dermatology Section

Ayurvedic Management of Hypersensitive Reactions to Insect Bite (*Keeta Visha*): A Case Report

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ABSTRACT

Insects are common in tropical countries like India, and their bites often cause allergic reactions ranging from local irritation to severe hypersensitivity. Common ants can trigger these reactions through protein allergens, resulting in symptoms like urticarial rashes, angioedema, and anaphylaxis. *Agadatantra* (Ayurvedic toxicology) focuses on managing these conditions, offering an alternative to modern drugs that may have adverse effects. A case study of a 22-year-old male with extensive erythematous rashes, severe itching, and facial swelling demonstrated the effectiveness of Ayurvedic treatments, which led to a rapid resolution of symptoms.

Keywords: Allergic manifestation, Agadatantra, Bites and stings, Vishachikitsa

CASE REPORT

A 22-year-old male presented to the Ayurveda outpatient department with erythematous, raised, progressive lesions distributed over the entire body for one hour, associated with severe itching, moderate burning sensation, and progressive facial swelling. The patient reported being bitten by household ants while sleeping at home. Within one hour, he developed diffuse erythema, pruritus, and swelling of the lips, nose, and chin, suggestive of angioedema. There was no history of drug allergy, cosmetic allergy, or hereditary skin disease. Vital signs were stable [Table/Fig-1]. On general examination, blood pressure noted was 130/80 mmHg, heart rate 74 bpm, respiratory rate 16/min, and weight 63 kg. Systemic examination was unremarkable: respiratory system showed a bilaterally symmetrical chest with no adventitious sounds; cardiovascular system revealed normal S1 S2 without added sounds; musculoskeletal and gastrointestinal systems were within normal limits.

1	**Nadi**	74/Min	5	Shabda	*Madyama*
2	**Mala**	*Samyak*	6	Sparsha	*Ushna*
3	**Mutra**	*Samyak*	7	Drik	*Pravara*
4	**Jihwa**	*Alipta*	8	Akriti	*Madyama*

[Table/Fig-1]: Ashtasthanapariksha (Ayurvedic vital parameters).

Based on clinical features and Ayurvedic interpretation, the condition was diagnosed as *Keeta Visha* (insect bite-induced Type I hypersensitivity with allergic angioedema). Differential diagnoses were systematically excluded [Table/Fig-2].

S. No.	Differential diagnosis	Reason for exclusion
1.	Urticaria	No superficial transient migratory wheals, no history
2.	Cellulitis	No fever, warmth or infection.
3.	Non-IgE-mediated angioedema	No ACE-inhibitor use or recurrent angioedema history.

[Table/Fig-2]: Differential diagnosis and reasons for exclusion.

Treatment was planned according to *Chaturvimshati Upakrama* described by *Acharya Charaka*, employing *Prashamana* (symptomatic relief) and *Oushadha* (etiological management) principles. Dietary restrictions included avoidance of aquatic meat, sour, spicy, salty foods, fermented products (curd, pickles), and cold drinks, as these are considered *Visha Vardhaka Bhavas*. Internal and external medications administered are detailed in [Table/Fig-3]. Clinical outcomes were assessed using symptom grading before and after treatment [Table/Fig-4] [1]. Photographic documentation of bite marks and therapeutic response is provided [Table/Fig-5a-c]. Written informed consent was obtained from the patient for clinical management and publication.

Medication	Dose	Duration	Observations
Vilwadi Gulika	1 *Gulika* with warm water	In 1 hour of insect bite	No improvement
Dasangam Gulika Abhayarishtam	1 *Gulika* + 15 mL *Arishtam*	Within 1.5 hours of onset	Reduction in swelling, rashes and erythema
Shatadhauta Ghrita prepared with Nalpamaradi Kashaya	3 times in 10-minute gap, applied all over body	1.5 hours onwards	Reduction in itching and burning
Vilwadi Gulika	1 *Gulika* with warm water	In 4 hours of onset	Completely free from symptoms, only bite mark left
Dooshivishari Gulika	2BD with warm water	For 7 days	To avoid latent toxic effect

[Table/Fig-3]: Internal and external medications administered.

Lakshana	Before		After 1.5 hours	
	Grade	Description	Grade	Description
Daha (Burning)	3	Present at bite site	0	Absent
Kandu (Itching)	4	All over body	0	Absent
Raga (Redness)	4	All over body	1	Mild
Pidaka (Raised Lesions)	4	All over body	1	Only on bite sites
Sotha (Swelling)	3	On face, lips and bite sites.	0	Absent

[Table/Fig-4]: Symptom grading before and after treatment [1].

The patient was observed for six hours with no adverse reactions. At 24-hour follow-up, he remained symptom-free with complete resolution of erythema, swelling, and pruritus, except for residual bite marks.

DISCUSSION

In tropical regions of India, household insect exposure is common. While many bites remain harmless, cutaneous manifestations such as erythema and urticaria are frequent, and systemic reactions including hypersensitivity, bronchospasm, and anaphylaxis have also been documented [2]. Global mortality due to insect bites and stings is relatively low (0.03-0.48 deaths per 1,000,000 population annually), yet the clinical burden remains significant [3]. Ayurveda



[Table/Fig-5]: Clinical photographs: (a) Before treatment showing diffuse erythema and swelling; (b) After treatment with resolution of lesions; (c) Residual bite marks on nape of neck and right arm.

describes these conditions under the concept of *Keeta Visha*, with management principles elaborated in *Agadatantra* [4].

In the present case, acute hypersensitivity with allergic angioedema was managed effectively using Ayurvedic interventions. Initial administration of *Vilwadi Gulika*- a classical *Samanya Chikitsa* for envenomation- did not yield immediate relief. Subsequently, *Dasangam Gulika* was introduced as *Vishesh Chikitsa*, supported by the dictum "*Sarva Keetavisham Jayet*" [4], along with *Prashamana Yogas*. *Vilwadi Gulika* is known for its antipyretic, immunomodulatory, antihistaminic, antimicrobial, and antitoxic properties [5], while *Shatadhauta Ghrita* prepared with *Ksheeri Vriksha* exhibits *Pitta Shamana*, *Daha Prashamana*, and *Ropana* effects, reducing erythema and burning [6,7]. *Dasangam Agada* has demonstrated antioxidant, analgesic, and anti-inflammatory activity, with experimental evidence of antihistaminic effects [8,9]. *Abhayarishta*, rich in *Haritaki*, contributes immunomodulatory, vasodilatory, and *Vatanulomana* actions, enhanced by its fermentation process [10]. To prevent latent toxic effects described under *Dushivisha*, *Dooshivishari Gulika* was prescribed for seven days [11,12].

Clinical outcomes in this case revealed rapid resolution of systemic and localised symptoms within 1.5 hours. Facial swelling subsided completely, severe itching and burning reduced to zero, and widespread erythema and raised lesions localised to bite sites. Compared to previously reported cases- where recovery required 5-20 days [13-15], this case demonstrates a markedly faster response. PatilSF et al., reported improvement in insect bite symptoms over 20 days [13], PariharB documented complete recovery within five days [14], and JangidSK et al., described resolution of honey bee sting manifestations in five days [15]. In contrast, the present case involved extensive cutaneous lesions with systemic involvement, yet achieved complete remission within a single day.

This highlights the potential of Ayurvedic *Agadas* and *Prashamana Yogas* in managing acute hypersensitivity reactions. The rapid therapeutic response underscores their clinical utility not only in localised insect bite reactions but also in systemic allergic manifestations. Further controlled studies are warranted to validate these findings and establish standardised treatment protocols.

CONCLUSION(S)

This case of insect bite highlights that insect bites can produce clinically significant hypersensitivity reactions, including skin manifestations and allergic angioedema.Timely clinical assessment and appropriate administration of *Agada Yogas* along with *doshagna chikitsa* effectively managed symptomatology and prevented complications. Treatment approach primarily aimed at reducing symptoms induced by venom exposure and preventing latent toxic effects. The observed clinical improvement in symptom grading across all parameters within this short period supports potential role of *Agadatantra* in effective acute management of insect bite envenomation.

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