



CRITICAL REVIEW ON *KALAKOOTARI GUTIKA*- AN UNEXPLORED FORMULATION IN THE MANAGEMENT OF SNAKE BITE

HARITHA M.^{1*} RAVIKRISHNA S.² CHAITHRA S. HEBBAR³

^{1*}Post Graduate Scholar, Department of PG studies in Agadatantra, SDM College of Ayurveda and Hospital, Udupi, Karnataka, India.

²Associate Professor, Department of PG studies in Agadatantra, SDM College of Ayurveda and Hospital, Udupi, Karnataka, India.

³Professor and Head, Department of PG studies in Agadatantra, SDM College of Ayurveda and Hospital, Udupi, Karnataka, India.

Corresponding Email id: harithaharidas005@gmail.com Access this article online: www.jahm.co.in

Published by Atreya Ayurveda Publications under the license CC-by-NC-SA 4.0

ABSTRACT:

Agadatantra (toxicology) is the branch which owns exclusive formulations for the management of various poisoning. As *Agadatantra* was widely practiced by *Visha vaidhyas* in various geographical areas, there were wide varieties of effective formulations in use. And those formulations were got recorded by *Vaidhyas* in their textbooks. But now only very few formulations are in use and even few such books are available; majority got ruined or destroyed. *Kriyakaumudi* written by V.M. Kuttikrishna Menon is a Malayalam textbook which is exclusively on *Agadatantra*. *Kriyakaumudi* is a repository of formulations and procedure on *Agadatantra*. It includes the many rare formulations, that too effective in bites and stings. *Kalakootari gutika* is one such formulation which is explained in the treatment of *Uraga visha* (snake envenomation). Hence this work is a review on this rare formulation. All the data will be collected from *Kriyakaumudi*, *Samhithas*, Publications and other authentic sources. The ingredients, their qualities and probable mode of action of the formulation in the management of *Visha* (Poison) with suitable explanation will be communicated. *Kalakootari gutika* is an effective and unique formulation explained in the management of *Visha*. Further studies should be carried out to know its efficacy.

Keywords: *Kalakootari gutika*, *Visha*, *Vishahara*, *Prativisha*

INTRODUCTION

Agadatantra can be considered as the emergency medicine as it deals with treatment of intoxication. During olden times *Agadatantra* was very much flourished in Kerala in the name of *Visha chikitsa*. Practice of *Visha chikitsa* was widely seen all over the Kerala. There were various famous *Vaidhyas* who treated *Visha*, that too highly venomous bites and they even use to predict bite case just with particular *lakshanas*. As this practice was in its peak there were various famous textbooks written exclusively on *Visha chikitsa*. Some of them are; *Vishajyotsnika*, *Prayogasamucchaya*, *Lakshanamrutham*, *Kodasserimargam* etc. *Kriyakaumudi* is one such *Visha chikitsa* textbook written in Malayalam by V.M. Kuttikrishna Menon. It can be considered as a Repository of Toxicology as it deals *Visha* in its all aspects. It is a compilation with all the basic aspects of *Visha*, such as classification, *Sthavara* (intra-sentient) *visha*, *Jangama visha*, in detail description about treatment of each *Jangama* and *Sthavara visha* with numerous formulations, *Dhootha lashanas*, *Pratyoushada* (antidote), *Sodhana* procedures etc.. Among the numerous formulations mentioned in the

textbook only few are now available and most are unknown to the practitioners. *Kalakootari gutika* is one such formulation mentioned in the *Uraga visha Samanya chikitsa*. Hence here an attempt is made to do review on this particular formulation.

Review of literature

The classical reference of this is available in *Kriyakaumudi*, Malayalam *Visha chikitsa* textbook written by V.M. Kuttikrishna Menon in the chapter *Uragavisha Samanya Chikitsa*. This formulation includes eight drugs and indicated for *Sarva uraga visha* [1].

Method of Preparation and Indication

The drugs such as *Dugdapashana*, *Gouripashana*, *Trikatu*, *Kupilu moola twak* (root bark which is taken from the northern direction), *Saindhava* should done *Bhavana* (triruration) for 4 *Yama* (12 hours) with *Vasa patra* (small leaves) *swarasa* and made in to *Gutika* in the size of *Dhanyaka*. Indication of this *Gutika* says it provides immediate cure for *Sarva uraga visha*(all types of snake poison), that too indicated only in very strong intoxication with *Anupana* such as *Neeli moola Kashaya* or *Tandulodaka* or any *Vishaghna anupana* [1].

Table no.1: Ingredients of *Kalakootari gutika* with Botanical name and family

Drugs	Botanical Name	Family
<i>Dugdapashana</i> [2]	Talc ($Mg_3[OH]Si_4O_{10}$)	-

<i>Gouripashana</i> ^[3]	White arsenic (AS ₂ O ₃)	-
<i>Maricha</i> ^[4]	<i>Piper nigrum</i> Linn.	Piperaceae
<i>Pippali</i> ^[5]	<i>Piper longum</i> Linn.	Piperaceae
<i>Sunti</i> ^[6]	<i>Zingiber officinale</i>	Zingiberaceae
<i>Kupilu</i> ^[7]	<i>Strychnos nuxvomica</i>	Loganiaceae
<i>Saindhava</i> ^[8]	Rock salt	-
<i>Vasa</i> ^[9]	<i>Adhathoda Vasica</i> Nees.	Acanthaceae

Table no.2, Kalakootari gutika ingredients and Rasa panchaka

Drugs	Rasa	Guna	Virya	Vipaka	Karma
<i>Dugdapashana</i> ^[2]	<i>Madhura</i>	<i>Ushna,</i> <i>Ruksha</i>	-	-	<i>Pittasamaka,</i> <i>Hridrogahara,</i> <i>Vranaropana,</i> <i>Sonitasthapana</i>
<i>Gouripashana</i> ^[3]	-	<i>Snigdha</i>	-	-	<i>Kaphavatahara,</i> <i>Vrishchika visha</i>
<i>Maricha</i> ^[4]	<i>Katu</i>	<i>Tikshna,</i> <i>Laghu</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphavatahara,</i> <i>Krimighna,</i> <i>Hridrogahara,</i> <i>Sulahara</i>
<i>Pippali</i> ^[5]	<i>Katu</i>	<i>Tikshna,</i> <i>Laghu,</i> <i>Snigdha</i>	<i>Anushna</i>	<i>Madhura</i>	<i>Kaphavatahara,</i> <i>Sulahara,</i> <i>Hridrogahara</i>
<i>Sunti</i> ^[6]	<i>Katu</i>	<i>Laghu,</i> <i>Snigdha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphavatahara,</i> <i>Hridrogahara,</i> <i>Sulahara</i> <i>Raktapittahara</i>
<i>Kupilu</i> ^[7]	<i>Tikta, Katu</i>	<i>Ruksha,</i> <i>Laghu,</i> <i>Tiksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphavatahara,</i> <i>Vranahara,</i> <i>Kusthaghna,</i>

					<i>Kandughna</i>
<i>Saindhava</i> [8]	<i>Lavana, Madhura</i>	<i>Laghu, Snigdha</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Tridoshashmaka, Hridrogahara</i>
<i>Vasa</i> [9]	<i>Tikta, Kashaya</i>	<i>Ruksha, Laghu</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kaphapittahara, Hridrogahara, Kushtaghna, Raktapittahara</i>

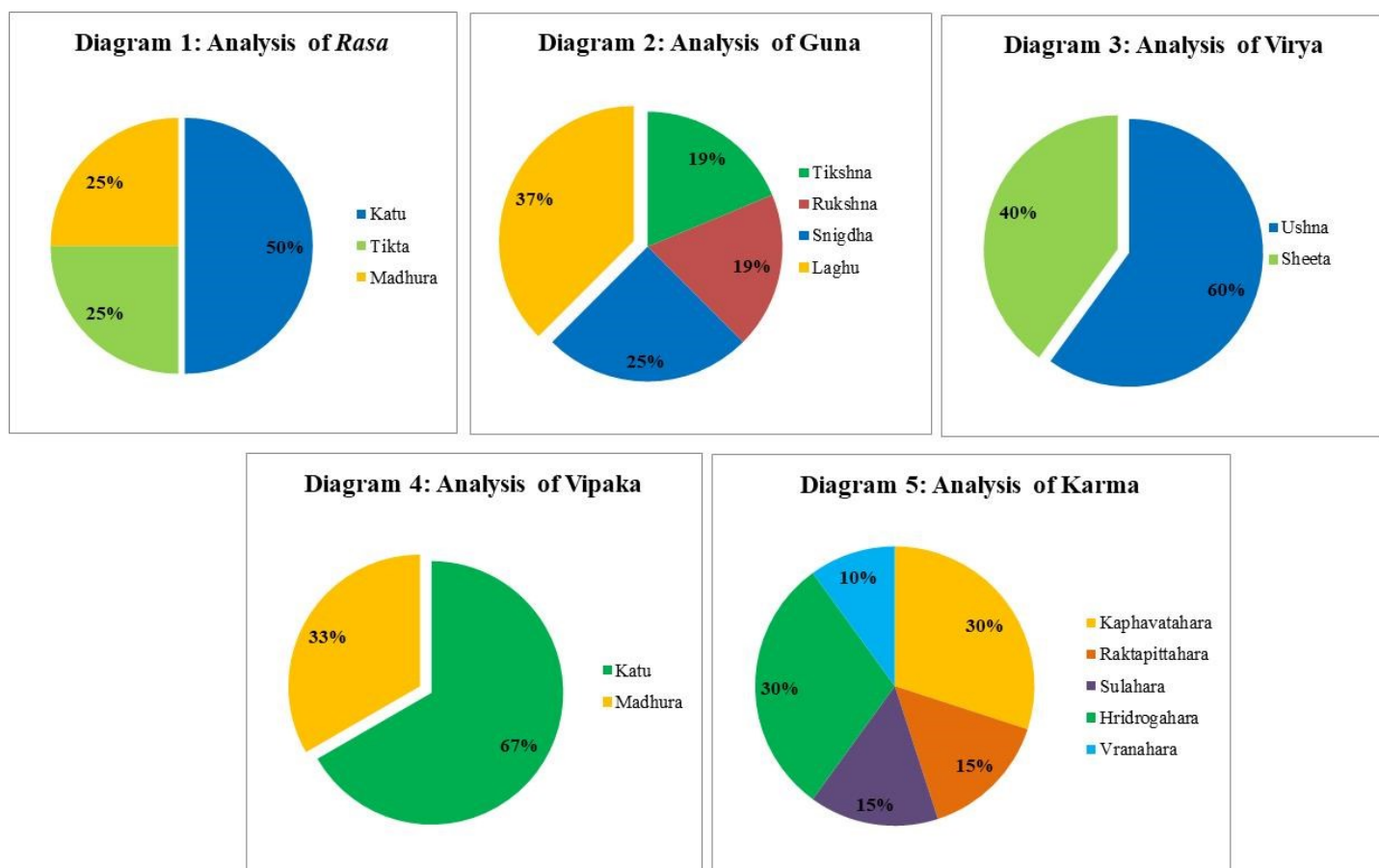


Fig.1: showing analysis of Rasapanchaka of ingredients of Kalakootari gutika

DISCUSSION

Probable mode of action

Kalakootari gutika is explained in Malayalam textbook named *Kriyakaumudi* in the chapter of *Uraga visha Samanya chikitsa*.

While considering the *Rasa* (taste), 50% of the drugs are *Katu rasa*, 25% are *Tikta rasa* and 25% are *Madhura rasa* (Diagram 1). According to *Charaka Samhita* and *Madanapala Nighantu*, *Tikta*, *Madhura rasa*

and *Katu rasa* are *Vishahara* respectively [10-11]. 37% are *Laghu* (lightness) *guna* (property), and 25% are *Snigdha* (sliminess)*guna* (Diagram 2). It is the *Laghu guna* that may be providing the deeper level penetration of the drug and as it is *Seegrapaki* [12] that may help in immediate metabolism of drug providing quick action. The *Snigdha guna* of the drug may imparts *Sneha* and *Kledatha*, thereby protect the heart from *Visha*. 60% of drugs are *Ushna* (hotness) *Virya* (Diagram 3). Even *Ushna Virya* is also *Asupaki*, providing immediate action [13]. And 67% of the drugs are *Katu Vipaka* (Diagram 4). While considering *Karma*, 30% *Kaphavatahara*, 30% *Hridrogahara*, 15% *Raktapittahara*, 15% *Sulahara*, 10% *Vranahara* (Diagram 5). *Hridrogahara karma* highlights the cardiac protective action of this formulation. *Sula*, *Raktasrava* etc. are the common symptoms in *Jangama Visha*; *Raktapittahara*, *Sulahara Karma* of this formulation may help to reduce those clinical conditions.

On Anupana

While considering the *Anupana*; *Neeli moola Kashaya*, *Tandulodaka* and *Vishaghna anupana* have been mentioned. Here author have given the liberty to choose suitable *Anupana* as per the *Yukti* (logical management) and availability of the drugs. As *Neeli* itself having *Vishaghna karma* [14] it

contributes to the formulation to provide better *Vishahara* action. Considering *Tandulodaka*; it is *Madhura rasa* and *Kashaya rasa* [15], these *Rasas* are *Vishaghna* and *Sthambhana* [10] respectively providing supportive action to the formulation. Thereafter author mentions that *Vishaghna anupana* can be used; shows that any available or suitable *Vishahara dravya* (substance) can be utilized.

On Bhavana

Here author have mentioned a specific time period for *Bhavana* of 4 *Yama*, i.e. 12 hours. This shows the efficacy of the drug, as the number of *Bhavana* increases that will increase the *Laghutha* of the formulation. So this may be one of the reasons for the immediate action of the formulation as mentioned in its indication. It is also said that “*Mardhanam guna vardhanam*”, means more number of *Mardhana* will increase the *Guna* of the drug and process of grinding reduces the particle size and increases surface area of the drug [16].

On Pramana

The *Gutika* is said to roll in to the size of a *Dhanyaka* (Coriander seed), this shows the potency of formulation. *Dhanyaka pramana* implies that formulation can provide immediate result in very strong intoxication even with small dose.

On *Prativisha* concept

Gouripashana is the drug, that which work in the concept of *Prativisha*. *Gouripashana* can be considered as *Sthavara visha* with *Dhatu* as its *Adhishtana* ^[17]. As it is *Sthavara visha* hence this formulation is indicated in *Jangama visha*, and will act as *Prativisha* ^[18]; thereby providing antidotal type of action.

CONCLUSION

Kalakootari gutika can be considered as a very effective formulation, as it contain few and easily available ingredients with a practically possible method of preparation. Unlike other formulations author has given many specifications to this formulation to make it more unique and potent. Such as fixed time period for *Bhavana*, more number of *Anupanas*, particular size for the *Gutika* and even incorporating other *Vishaja dravya* in formulation to add the *Prativisha* effect etc.. These all specifications will makes this formulation as a lifesaving one as mentioned in its indication. *Kriyakaumudi* can be considered as Repository of toxicology as it contain numerous such formulation that too effective and but untouched by the present generation. So various Pre clinical and clinical studies should be carried out to know the excellence of this formulation and thereby to

bring back this formulation in to normal clinical practice.

REFERENCES

1. Menon Kuttikrishna V.M. Kriyakaumudi (A Malayalam textbook on Ayurvedic toxicology); 1st edition, Sahitya pravarthaka Co-operative society Ltd; Kottayam; 1986; 271
2. Reddy Sekhar P. A Text Book of Rasasastra; Chaukamba Orientalia; Varanasi; 2015; 390-1.
3. Reddy Sekhar P. A Text Book of Rasasastra; Chaukamba Orientalia; Varanasi; 2015; 260-1.
4. Hegde Prakash L, Harini A. A Textbook of Dravyaguna Vijnana. Vol 2; Chaukhamba publication; Delhi; 2019; 582-5.
5. Hegde Prakash L, Harini A. A Textbook of Dravyaguna Vijnana. Vol 2; Chaukhamba publication; Delhi; 2019; 656-60.
6. Hegde Prakash L, Harini A. A Textbook of Dravyaguna Vijnana. Vol 2; Chaukhamba publication; Delhi; 2019;60-4.
7. Hegde Prakash L, Harini A. A Textbook of Dravyaguna Vijnana. Vol 2; Chaukhamba publication; Delhi; 2019; 518-20.
8. Kamat S.D. Studies on Medicinal Plants and Drugs in Dhanvantari Nighantu. Chaukhamba Sanskrit Pratisthan; Delhi; 2002: 134-5.
9. Hegde Prakash L, Harini A. A Textbook of Dravyaguna Vijnana. Vol 2; Chaukhamba publication; Delhi; 2019; 871-4.

Haritha M, Ravikrishna S., Chaithra S. Hebbar. Critical review on Kalakootari Gutika- an unexplored formulation in the management of Snake bite. *Jour. of Ayurveda & Holistic Medicine*, Vol.-XI, Issue-IV (April 2023).

10. Vidhyadhar Shukla, Ravi Dutt Tripathi, Vaidyamanorama Hindi commentary on Charaka Samhita of Agnivesa, Sutrasthana, Chapter 26, Verse no. 43, Delhi; Chaukhamba Sanskrit Pratisthan; Athreyabadhrakapiyam adhyaya; 368-71.
11. Sastry JLN. English translation on Madanapala Nighantu. Chaukhamba Orientalia; Varanasi; 2010: 958.
12. Hegde Prakash L, Harini A. A Textbook of Dravyaguna Vijnana. Vol 1; Chaukhamba publication; Delhi; 2016; 164.
13. Hegde Prakash L, Harini A. A Textbook of Dravyaguna Vijnana. Vol 1; Chaukhamba publication; Delhi; 2016; 308.
14. Hegde Prakash L, Harini A. A Textbook of Dravyaguna Vijnana. Vol 3; Chaukhamba publication; Delhi; 2022; 450-2.
15. Pradipkumar B. Giri, Jaimala Annasaheb Jadhav. Role of Sharapunkha moola churna with Tandulodaka Anupana in Menorrhagia (Asrigdara)- A Case report. *Ayurlog: National Journal of Research in Ayurveda Science*, [internet] 2020 Jan; (8) (1): 1-6. Available from: <https://www.ayurlog.com/index.php/ayurlog/article/view/535>
16. Hussain G, Govinda Sharma K, Concept of Mardhana: a review, *Journal of Drug Delivery and Therapeutics*, [internet] 2018;8(5-s):25-27. Available from: <http://dx.doi.org/10.22270/jddt.v8i5-s.1929>
17. Jadvji Trikamaji (editor). *Susruta Samhitha of Susruta, Kalpasthana, Chapter 2, verse no.4.* Varanasi; Chaukhamba Sanskrit Sansthan; 2017:564
18. Tripathi Brahmanand, *Caraka-Chandrika Hindi commentary on Charaka Samhita of Agnivesa, Chikitsasthana, Chapter 23 , Verse no.17 ,* Varanasi; Chaukhamba Surbharati Pratisthan; 749

CITE THIS ARTICLE AS

Haritha M, Ravikrishna S., Chaithra S. Hebbar. Critical review on Kalakootari Gutika- an unexplored formulation in the management of Snake bite. *J of Ayurveda and Hol Med (JAHM)*.

2023;11(4):102-108

Conflict of interest: None

Source of support: None