

A REVIEW ON MAHAGADA¹*Sk. Hafiz Hasan, ²Gazala Hussain and ³W. G. Anjali^{1,3}Final Year PG Scholar, Dept. of Agada Tantra, Sri Dharmasthala Manjunatheswara College of Ayurveda & Hospital, Hassan, Karnataka, India.²Associate Professor, Dept. of Agada Tantra, Sri Dharmasthala Manjunatheswara College of Ayurveda & Hospital, Hassan, Karnataka, India.***Corresponding Author: Sk. Hafiz Hasan**

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ABSTRACT

Agada tantra is the branch of Ayurveda which deals with the different poisoning conditions and its treatment. For the management of poisons various formulations have been described. Mahagada is one of those formulations which are described in ancient literature of Ayurveda in the context of treatment of various kind of poisoning. It is indicated in snake, spider, rat, scorpion, homicidal etc. poisoning and also in fever, gastro enteritis, indigestion etc. conditions. To evaluate the efficacy of this formulation and to understand its mode of action a thorough scientific review is needed; which can also help to use this formulation with more confidence. It is a simple formulation comprising of easily available ingredients and method of preparation is also easy.

KEYWORDS: Mahagada, Agada tantra, Ayurveda, Poison, Snake bite.**INTRODUCTION**

Agada tantra is a subject that deals with various kinds of poisoning and its treatment. There is mention of various Agada yogas (antitoxic formulations) in different texts of Ayurveda in the context of treatment of different kind of poisoning. In Astanga Sangraha Uttarasthana (42/50) Mahagada is described in the context of treatment of snake poisoning. It can also be used in the conditions like spider, rat, scorpion poisoning and also in gastro enteritis, indigestion, homicidal poison, fever, etc.^[1] It is a formulation that has 14 ingredients, it has to be triturated with goat's urine till it turns into a fine paste, dried and preserved for further use.^[2] To understand the mode of action of this formulation and to justify the efficacy of it, a comprehensive scientific review work is a prerequisite. Thus an effort has been made to review the said formulation to encourage its use in various poisoning conditions.

Table 1: Ingredients of Mahagada.^[3]

Ingredients	Scientific name	Family
Trivrit	<i>Operculina turpethum</i> Linn.	Convolvulaceae
Visalya	<i>Gloriosa superba</i> Linn.	Liliaceae
Madhuka	<i>Glycyrrhiza glabra</i> Linn.	Leguminosae
Haridra	<i>Curcuma longa</i> Linn.	Zingiberaceae
Daruharidra	<i>Berberis aristata</i> DC.	Berberidaceae
Manjistha	<i>Rubia cordifolia</i> Linn.	Rubiaceae
Shunthi	<i>Zingiber officinale</i> Rosc.	Zingiberaceae
Pippali	<i>Piper longum</i> Linn.	Piperaceae
Maricha	<i>Piper nigrum</i> Linn.	Piperaceae
Goats urine	Urine of <i>Capra aegagrus</i>	Bovidae
Pancha Lavana (Five Salts) ^[4]		
Name	English name	Chemical Constituents
Sauvarchala Lavana	Sochal salt	-Sodium Chloride (NaCl)-97.8% -Total Sulphide (Na ₂ S)-0.981% -Iron (Fe)- 0.03% -Insoluble matters- 0.07%
Saindhava Lavana	Chloride of Sodium	-Sodium Chloride (NaCl)-97.6% -Sodium Bicarbonate (NaHCO ₃)-0.07% -Insoluble matters-0.031%
Vida Lavana	Ammonium salt	-Sodium Chloride (NaCl)-93.7% -Total Sulphide (Na ₂ S)-0.121% -Iron (Fe)-0.0089%
Aubhida Lavana	Reha salt	- Sodium Chloride (NaCl)-94.10% - Total Sulphide (Na ₂ S)-0.042% - Sodium Bicarbonate (NaHCO ₃)-0.049%
Samudra Lavana	Sea salt	- Sodium Chloride (NaCl)-91.3% - Total Sulphide (Na ₂ S)-0.121% - Iron (Fe)-0.0089% - Calcium Sulphate, Magnesium Sulphate, Magnesium Chloride etc- in little quantities

Method of preparation^[5]

All the ingredients are taken in equal quantity. They are powdered separately; the fine powders of the ingredients are mixed well to form a homogenous mixture and then made into a paste form by triturating with Ajamutra.

Administration of Mahagada^[6]

It can be used as collyrium, oral route and nasal medication.

Indication^[7]

It is indicated in poisoning of snake, spider, rat, scorpion, etc. and also in gastro enteritis, indigestion, homicidal poison, fever, etc.

Anupana (Adjuvant)

As the specific anupana is not mentioned; based on the condition of poisoning and mode of administration the suitable adjuvant can be adopted.

Table 2: Properties of ingredients of Mahagada.

Drug	Rasa	Guna	Veerya	Karma
Trivrit ^[8]	Tikta (Bitter), Katu (Pungent)	Laghu (Light), Ruksha (Dry), Teekshna (Sharp)	Ushna (Hot)	Shothahara (Anti-oedematous), Jvaraghna (Antipyretic), Sukhavirechan (Light Purgative), Kapha-pitta shaman
Visalya ^[9]	Katu (Pungent), Tikta (Bitter)	Laghu (Light), Teekshna (Sharp)	Ushna (Hot)	Deepan (Gastro-stimulant), Krimighna (Antihelmentic), Garbhashaya sankochana (Uterine Contraction), Visamajvaraghna (antipyretic), Kapha-vatashaman, Raktashodhana (Blood purifier),
Madhuka ^[10]	Madhura	Guru (Heavy), Snigdha (Unctuous)	Sheeta (Cold)	Snehan (Unctous), Anuloman, Stambhan, Raktapittashamak (prevent bleeding due to vitiation of Rakta and Pitta), Mutrala (Uriliser), Dahaprashaman (releasing burning sensation), Veadanasthapan (Analgesic), Vata-pittashamana
Haridra ^[11]	Tikta (Bitter), Katu (Pungent)	Laghu (Light), Rooksha (Dry)	Ushna (Hot)	Kushtaghna (anti-leprotic), Kandughna (Anti-pruritic), Vishaghna (Anti-poisonous), Lekhaniya (aids in reducing corpulency), Krimighna (Anti-helmentic), Kaphavatarakta doshahara (balance Kapha and Vata humor)
Daruharidra ^[12]	Tikta (Bitter), Kashaya (Astringent)	Laghu (Light), Rooksha (Dry)	Ushna (Hot)	Kandughna (Anti-pruritic), Vishahara (Anti-poisonous), Shophahara (Anti-inflammatory), Kaphapittahara (Balance Kapha-Pitta humo)
Manjistha ^[13]	Tikta (Bitter), Kashaya (Astringent), Madhura (Sweet)	Guru (Heavy), Rooksha (Dry)	Ushna (Hot)	Shothahara (Anti-oedematous), Vranaropana (Wound healing), Kushthaghna (Anti-leprotic), Deepan (Gastro-stimulant), Pachan (Digestive), Stambhan (Antihemorrhagic), Krimighna (Antihelmentic), Raktashodhana (Blood purifier), Varnya (Complexion promoter), Rasayana (Rejuvenant), Kapha-pittashamana (Balance Kapha-Pitta humor)
Shunti ^[14]	Katu (Pungent)	Laghu (Light), Snigdha (Unctuous)	Ushna (Hot)	Panduhara (Prevent anaemia), Shoolaprashamana (Antipyretic), Atisarhara (Prevent Diarrhoea), Shophahara (Anti-inflammatory), Jwarahara (Anti-pyretic), Vatakaphahara (Balance Vata and Kapha humor)
Pippali ^[15]	Katu (Pungent)	Laghu (Light), Snigdham (Unctuous), Teekshna (Sharp)	Anushnasheeta	Pleehayakrit rogahara (Prevent liver and spleen disorder), Jwaraghna (Anti-pyretic), Jantughna, Vatakaphahara (Balance Vata and Kapha humor)
Maricha ^[16]	Katu (Pungent)	Laghu (Light), Teekshna (Sharp)	Ushna (Hot)	Jantughna, Krimighna (Antihelmentic), Vishaghna (Antipoisonous), Shoolaprashamana (Analgesic), Bhootaghna, Janthusamsthananashana
Pancha Lavana (Five Salts) ^[17]				
Sauvarchala Lavana		Laghu (Light), Vishada (clearness), Snigdha (Unctuous)	Ushna (Hot)	Deepana (Gastro-stimulant), Pachana (Digestive), Gulmahara (Prevent abdominal lump), Sulahara (Analgesic), Krimighna (Antihelmentic), Vatanulomana (Prevent gastritis), Vatashamana (Balances Vata humor)
Saindhava Lavana		Laghu (Light), Snigdha (Unctuous), Teekshna (Sharp)	Sheeta (Cold)	Agniideepana (Gastrostimulant), Pachana (Digestive), Hridya (Prevent heart), Shothahara (Antioedematous), Vibandhaghna (Prevent constipation), Vranaropana (Wound healing), Tridoshashamaka (Balance Vata, Pitta and Kapha humor)
Vida Lavana		Laghu (Light), Ushna (Hot), Teekshna (Sharp)	Ushna (Hot)	Ajeernahara (Digestive), Sulahara (Analgesic), Vibandhahara (Prevent constipation), Hridya, Vatanulomana (Prevent gastritis)
Aubhida Lavana	Tikta (Bitter), Katu (Pungent), Kshara	Teekshna (Sharp)		Utkledi
Samudra Lavana	Kshara	Snigdha (Unctuous)	Samasheetoshna	Agniideepak (Gastro-stimulant), Vatashamak (Balance Vata humor)
Goat's urine ^[18]				Vishaghna, Krimighna, Shulaghna, Shophahara, Udarapleehahara, Kushtaghna, Kamalahara

To understand the mode of action on these conditions, the pharmacological properties of the ingredients of Mahagada are discussed here.

Based on karma

In this formulation about 23.07% of the ingredients have shothahara karma, 30.76% of the ingredients have

jvaraghna karma, 61.53% have kaphahara karma, 61.53% have vatahara karma, 38.46% have pittahara karma, 23.07% of the ingredients have krimighna karma, 15.38% have raktashodhana karma, 23.08% have kandughna karma, 15.38% have kushtaghna karma, 15.38% have jantughna karma, 15.38% have vishahara karma, 46.15% have shulahara karma, 15.38% have

vranaropana karma, 7.69% of the ingredients have dahaprashamana karma and 15.38% of the ingredients have stambhana karma.

Based on rasa

In this formulation about 63.64% of the ingredients have katu rasa, 54.54% of the ingredients have tikta rasa, 18.18% of the ingredients have madhura rasa and 18.18% of the ingredients have kashaya rasa.

Based on guna

In this formulation about 76.92% of the ingredients have laghu guna, 30.77% of the ingredients have rooksha

guna, 53.85% of the ingredients have teekshna guna, 15.38% of the ingredients have guru guna, 46.15% of the ingredients have snigdha guna and 7.69% of the ingredients have vishada guna.

Based on veerya

In this formulation about 69.23% of the ingredients have ushna veerya, 15.38% of the ingredients have sheeta veerya and 7.69 of the ingredients have samasheetosha veerya.

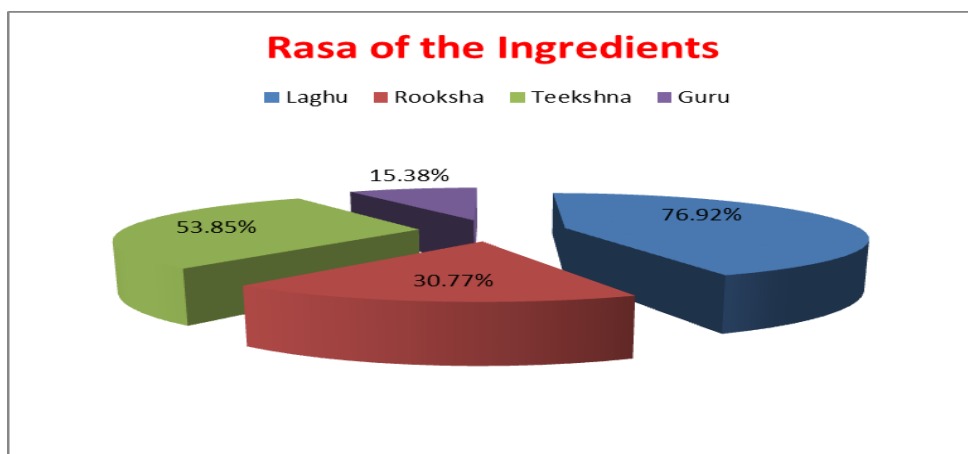


Diagram 1

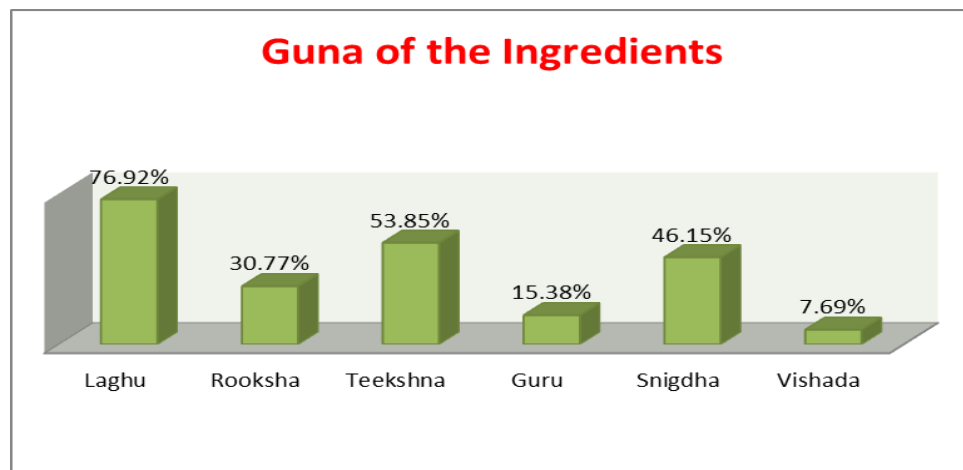


Diagram 2

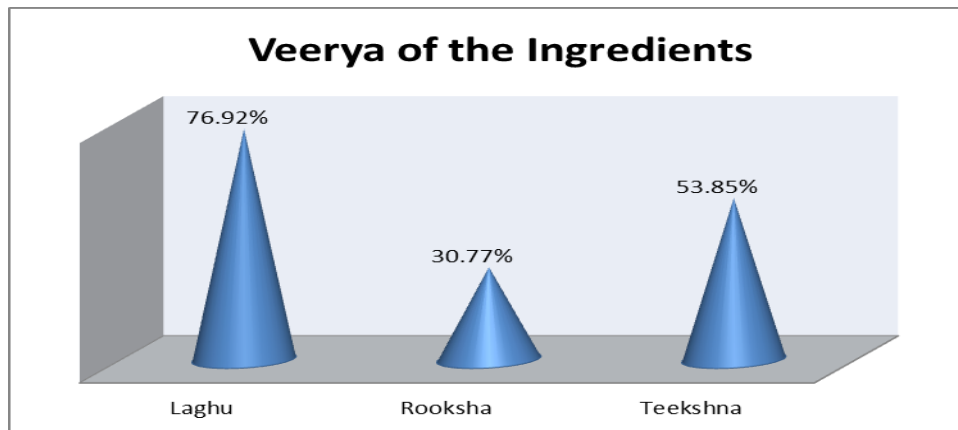


Diagram 3

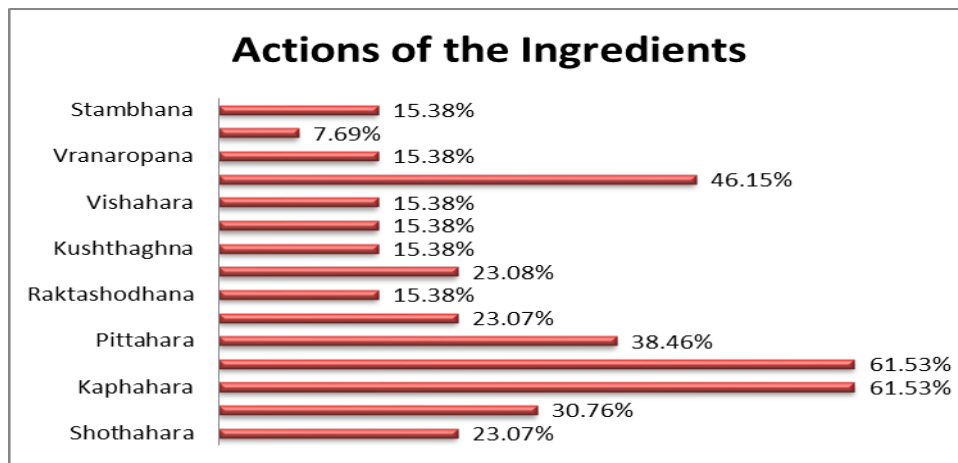


Diagram 4

DISCUSSION

Mahagada is explained in the context of snake poison treatment, though it can be used in other poisoning conditions and also in cases of fever, indigestion, etc. In poisonous snake bite the symptoms like shotha (swelling), Toda (pricking and knotty pain), kandu (itching), daha (burning sensation), etc. are seen. Due to shothahara, kaphahara properties of the ingredients the drug acts on swelling due to vatahara and shulahara properties it acts on pain, the actions like kaphahara and kandughna it reduces itching and due to pittahara, dahaprashamana and jvaraghna properties it helps to reduce burning sensation and fever. Also some of the ingredients have vishahara, raktashodhana, jantughna, vranaropana actions which help to combat poisoning condition and its complications. This formulation helps in relieving the symptoms of poisoning because of its multifold properties.

CONCLUSION

Mahagada is a formulation comprising of nine herbal ingredients and five lavanas that have to be triturated with Goat's urine till the subhavit lakshanas are attained (turns into fine paste form). The ingredients of the formulations are available and the method of preparation is also simple; and hence this formulation can be brought to practice for various conditions as it is indicated not

only for poisoning of snake, spider, rat, scorpion, etc. but also in conditions of gastro enteritis, indigestion, fever, etc.

Due to the actions and properties of its ingredients, it can be useful in poisoning conditions to give symptomatic relief. Further research works might be helpful to explore its exact mode of action and to use the formulation as a whole in poisoning conditions.

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