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<u>Review Article</u>

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# CONCEPTUAL STUDY OF ANTI-TOXIC ACTION OF MAHAGADA- A REVIEW

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## ABSTRACT

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\*Corresponding Author Dr. A. C. Tumram Assi. Professor, Dept of Agadtantra, GAC Nagpur. Agada means the medicaments which have anti toxic properties. They are used to combat Gada which means disease, discomforts, pain, or morbid conditions produced by any type of the poison. In Ayurveda Samhita's many formulations containing anti toxic property are described. These Agadas are administered in the form of Paan (drinks), Abhyanga (massage), Nasya (nasal instillations), Dhoom (medicated smoke) etc. Mahagada has been mentioned by Aacharya Sushruta in Sarpadhashtavishchikitsa Adhyay of Sushrut Samhita kalpasthan. 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. Antitoxic action and pharmacological properties of Mahagada are reviewed in this article.

KEYWORDS: Agada, Antitoxic action, Mahagada, Snake bite, Pharmacological properties.

# INTRODUCTION

Agadtantra deals with the signs, symptoms and management of poisoning due to various poisons and by improper combinations of substances or drugs. The term visha is derived from the word vishada (sorrow). Agada means the medicaments which are used as an antidote or substances having anti-poisonous properties. In Agadtantra various Agadas are described for treatment of various types of Jangam visha (Animal Poisons) and Sthavar Visha (vegetable and mineral poisons).

In Sushrut Samhita kalpasthan (5/61-63) & 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.<sup>[1,2]</sup> Mahagada has 14 ingredients, and all are triturated with goat's urine till it turns into a fine paste, dried and preserved for further use.<sup>[3]</sup> This article reviews Anti toxic and pharmacological properties of Mahagada. The article is based on scientific publications and textual literature.

#### AIMS AND OBJECTIVES

- 1. To study the anti-toxic action of Mahagada.
- 2. To study the Pharmacological and therapeutic action of each drug in Mahagada

#### MATERIALS AND METHODS

The study being a literary review, the sources of data will be collected from all Ayurveda literature and also from the contemporary textbooks, relevant Journals and websites.

Sr. no.	Name of Dravya	Botanical name	Family	
1	Trivrit	Operculina turpenthum	convolvulaceae	
2	Vishalya	Gloriosa superba	Liliaceae	
3	Madhuka	Glychyrrhiza glabra	Leguminocae	
4	Haridra	Curcuma longa	Zingiberacae	
5	Daruharidra	Berberis aristata	Berberidaceae	
6	Manjistha	Rubia cordifolia	Rubiaceae	
7	Shunthi	Zinziber officinale	Zingiberaceae	
8	Pippali	Piper longum	Peperaceae	
9	Maricha	Piper nigrum	Peperaceae	
10	Goats urine	Urine of capra aegagrus	Bovidae	
11	Sauvarchala Lavana	Sochal salt	-	
12	Saindhava Lavana	Chloride of sodium	-	
13	Vida Lavana	Ammonium salt	-	
14	Aubhida Lavana	Reha salt	-	
15	Samudra Lavana	Sea salt	-	

Table no. 1. Showing ingredients of Mahagada<sup>[4]</sup>

## Methods of preparations of Mahagada<sup>[5]</sup>

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. Rasa Panchaka (Properties) of individual ingredients of Mahagada

Table no. 2: Showing the Pharmacological properties of ingredients ofMahagada.

Sr. no.	Name of Dravya	Rasa	Guna	Virya	Vipaka
1	Trivrit	Tikta, Katu	Laghu, Ruksha	Ushna	Katu
2	Vishalya	Tikta, Katu	Laghu, Tikshna	Ushna	Katu
3	Madhuka	Madhura	Guru, Snigdha	Sheeta	Madhura
4	Haridra	Tikta, Katu	Laghu, Ruksha	Ushna	Katu
5	Daruharidra	Tikta, Kashaya	Laghu, Ruksha	Ushna	Katu
6	Manjistha	Tikta, Kashaya, Madhura	Guru, Ruksha	Ushna	Katu
7	Shunti	Katu	Laghu, Snigdha	Ushna	Madhuraa
8	Pippli	Katu	Laghu, Tikshna	Anushnasheeta	Madhura
9	Maricha	Katu	Laghu, Tikshna	Ushna	Katu

### Administration of Mahagada<sup>[15]</sup>

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

## Indication<sup>[16]</sup>

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.

# Karma (Pharmacological action) of individual ingredients of Mahagada<sup>[6-14,17]</sup>

- **Trivrita:** Shothahara (Anti-oedematous), Jvaraghna (Antipyretic), Sukhavirechan (Light Purgative), Kapha-pitta shaman.
- Vishalya: Deepan (Gastro-stimulant), Krimighna (Antihelmentic), Garbhashaya sankochana (Uterine Contraction), Visamajvaraghna (antipyretic), Kapha-vatashaman, Raktashodhana (Blood purifier).
- Madhuka: Snehan (Unctous), Anuloman, Stambhan, Raktapittashamak (prevent bleeding due to vitiation of Rakta and Pitta), Mutrala (Uriliser), Dahaprashaman (releaving burninig sensation), Veadanasthapana (Analgesic), Vata-pittashamana

- **Haridra:** Kushtaghna (anti-leprotic), Kandughna (Anti-pruritic), Vishaghna (Antipoisonous), Lekhaniya (aids in reducing corpulency), Krimighna(Anti-helmentic), Kaphavatarakta doshahara (balance Kapha and Vata humor).
- **Daruharidra:** Kandughna (Anti-pruritic), Vishahara (Anti-poisonous), Shophahara (Anti-inflammatory), Kaphapittahara (Balance Kapha-Pitta humo).
- Manjishta: 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: Panduhara (Prevent anaemia), Shoolaprashamana (Antipyretic), Atisarahara (Prevent Diarrhoea), Shophahara (Antiinflmmatory), Jwarahara (Anti-pyretic), Vatakaphahara (Balance Vata and Kapha humor)
- **Pippali:** Pleehayakrit rogahara (Prevent liver and spleen disorder), Jwaraghna (Antipyretic), Jantughna, Vatakaphahara (Balance Vata and Kapha humor)
- Maricha: Jantughna, Krimighna (Antihelmentic), Vishaghna (Antipoisonous), Shoolaprashamana (Analgesic), Bhootaghna, Janthusamsthananashana.
- Sauvarchala: Deepana (Gastro-stimulant), Pachana (Digestive), Gulmahara (Prevent abdominal lump), Sulahara (Analgesic), Krimighna (Antihelmentic), Vatanulomana (Prevent gastritis), Vatashamana (Balances Vata humor).
- Saindhava lavana: Agnideepana (Gastrostimulant), Pachana (Digestive), Hridya(Prevent heart), Shothahara (Antioedematous), Vibandhaghna (Prevent constipation), Vranaropana (Wound healing), Tridoshashamaka (Balance Vata, Pitta and Kapha humor).
- Vida lavana: Ajeernahara (Digestive), Sulahara (Analgesic), Vibandhahara (Prevent constipation), Hridya, Vatanulomana (Prevent gastritis).
- Aubhida lavana: Utkledi

- Samudra lavana: Agnideepak (Gastro-stimulant), Vatashamak (Balance Vata humor).
- Goats urine: Vishaghna, Krimighna, Shulaghna, Shophahara, Udarapleehahara, Kushtaghna, Kamalahara.

#### DISCUSSION

Mahagada is a formulation comprising of nine herbal ingredients and five lavanas that have to be triturated with Goat's urine. 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, kapahahara 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 multi-fold properties.

#### CONCLUSION

The action of Mahagada is because of its *samyoga visheshata* (because of the uniqueness of combination it possesses special action). Majority of the drugs are *tikta* (bitter), *katu* (pungent) *rasa pradhan* which acts as *kapha-vatahara* (pacifies kapha & vata). Most drugs are *ushna veerya* (hot potency), majority are *katu vipaka* hence can act as quickly as *visha / antidote*. 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 like, poisoning of snake, spider, rat, scorpion, etc. The formulation can be used as anti-inflammatory, analgesic, antioxidant, antibiotic and also useful in conditions like gastroenteritis, indigestion, fever etc.

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