

CLINICAL APPLICATION OF AYURVEDA IN INITIAL MANAGEMENT OF ACUTE
INGESTED POISON IN CURRENT SCENARIO¹Dr. Subodh Jain*, ²Dr. Sharad M Porte and ³Dr. Vinod Kumar Gothecha¹Dept of Agadtantra, National Institute of Ayurveda, Amer road, Jaipur, Rajasthan.²Lecturer, Dept of Agadtantra, National institute of Ayurveda, Jaipur.³Professor, Dept of Agadtantra, National institute of Ayurveda, Jaipur.

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ABSTRACT

Acute poisoning is defined as acute exposure (less than 24hrs) to the toxic substance. Acute poisoning due to either accidental or homicidal or suicidal exposure causes significant mortality and morbidity throughout the world. Hence, it is need to apply the basic principles of *Ayurveda* in management of acute ingested poisoning. In acute ingested poisoning induced emesis is essential indication otherwise contra-indication. The induced emesis should be given by 3 litre decoction of 10 gm *Ikshvaku seeds* (*Lagenaria siceraria*) frequently till the poisonous material ended in vomitus matter. In case of poison situated in *pakwasahya* (intestine) 100 ml decoction of 10 gm *Nilinifala* (*Indigofera tinctoria*) along with 10 gm *ghee* for induced purgation. After decontamination of poisonous materials from gastrointestinal tract *dushivishari agad* should be given 5gm twice a day. The patients of acute ingested poisoning can be managed by using induced emesis, purgation and *dushivishari agad* if patient come in early phase.

KEYWORDS: Ayurveda, Acute ingested poison, Induced emesis, Induced purgation.

INTRODUCTION

Acute poisoning by various chemicals is a common medical emergency in any country. A poison is any substance that through its chemical action (and sometimes through its physical action) impairs, injures or kills an organism. Acute is defined as acute exposure (less than 24 hrs) to the toxic substance. Acute poisoning is due to accidental, homicidal and suicidal exposure causes significant mortality and morbidity throughout the world. According to World Health Organization (WHO), globally more than three million of acute poisoning cases with 2, 20,000 deaths occur annually (WHO 1999).^[1] It has been estimated that, in India five to six persons per lakh of population die due to acute poisoning every year.^[2] Poisoning is the fourth common cause of mortality in India.^[3] Clinical toxicology is not new subject for *Ayurveda* which is described under the heading of *Agadatantra*. Acute, chronic and cumulative poisoning of vegetables, metals & animate toxicity and its clinical manifestation, diagnosis and management has been described in *Ayurveda* in details.

Acute ingested poisoning, its clinical manifestation and management also mentioned in *Ayurveda* under the heading of unabsorbed ingested poison in stomach

(*amashayagat visha*) and unabsorbed ingested poison in intestine (*pakwashayagat visha*) but matter is scattered.

In this research article, the clinical application of acute ingested poison and its initial *Ayurvedic* management has been highlighted and discussed.

AIM AND OBJECTIVES

To elaborate, evaluate and discussion of an *ayurvedic* initial management in case of acute ingested poisoning.

METHOD

Clinical application of *ayurveda* in management of acute ingested poisoning is based on textual review of *Brihatrayi* and its contemporary commentary. Among *Brihatrayi*, *charak samhita*, *Susruta samhita* and *Ashtang hrudiyam* has been revised to rule out the sign-symptoms and management of acute poisoning. *Bhawaprakasha nighantu* also has been revised for drug review so as to find out efficacy and safety of drug. In reference of modern concept, different books of clinical toxicology and medicine have been revised. Internet sources were also much helpful in this context.

RESULT AND DISCUSSION

Clinical manifestation of ingested poison

➤ *Amashayagata Visha* (unabsorbed poison in stomach)

As per Susruta samhita, syncope (*moorchha*), vomiting (*chhardi*), diarrhea (*atisara*), flatulence (*adhmana*), burning sensation (*daha*), shivering (*vepathu*), and derangement of sense (*indriyavikruti*) are the symptoms when there is unabsorbed poison in stomach.^[4]

➤ *Pakwashayagat visha* (unabsorbed poison in intestine)

As per Susrutasamhita, burning sensation (*daha*), syncope (*moorchha*), diarrhea (*atisara*), thirst (*trishna*), derangement of sense (*indriyavikruti*), flatulence (*aatopa*), pallor (*paanduta*) and emaciation (*karshya*) are the symptoms when there is unabsorbed poison in intestine.^[5]

Management of ingested poison when poison is in stomach

Induced emesis- Removal of unabsorbed poison from stomach along with gastric content by means of vomiting induced by emetics is called as induced emesis.

According to *Acharya Govindadas Sen*, in case of inanimate ingested poison, first emesis should be performed because it is considered as best procedure for removing poison from stomach.⁶ According to *Susruta samhita*, *Randia spinosa* (*Madanaphala*), *Lagenaria siceraria* (*alabu* or *ikshwaku*), *Coccinia indica* (*bimbi*) and *Luffa acutangula* (*koshatakiphala*) should be used for performing emesis.^[7]

Here we considered *alabu* or *ikshwaku* (*Lagenaria siceraria*) as appropriate drug because its safety and efficacy can be assessed due to following reasons:

- i) *Acharya charak* has mentioned *Lagenaria siceraria* among *phalini dravya* which are used as potential emetics.^[8] again in kalpasthan *Charak* mention different clinical uses of *Lagenaria siceraria*.^[9]
- ii) *Acharya susruta* also has mentioned *Lagenaria siceraria* among induced emetics (*urdhwabhagahar dravya*).^[10]
- iii) *Acharya Vagbhatta* also has mentioned it among induced emetics (*vaamak dravya*).^[11]
- iv) According to *Acharya Bhawa Mishra*, *Lagenaria siceraria* has cold (*hima*) and cardiotonic (*hridya*) properties so it can be used for emesis.^[12]

Indications of emesis

Before performing a procedure for gastric emptying, it is important to consider whether the ingestion is potentially dangerous, can the procedure remove a significant amount of toxin, and whether the benefits of a procedure outweigh its risks? If the patient has ingested a non-toxic agent, non-toxic dose of toxic agents, or if he is free of symptoms despite passage of time during which the toxin is known to produce features of toxicity, gastric emptying is unnecessary. Induced emesis can be

performed only when patient is conscious and orientated with stable vital.^[13]

Procedure of emesis

The decoction of 10 gm of *Lagenaria siceraria* seed should be given approximately 3 lit. or bellyful then patient should guide to insert middle finger in mouth till the tip of finger touches the anterior pharyngeal wall so that he will washout the poison from stomach spontaneously. Repeat this procedure till the smell, color or content of poison vanished.

Contraindications of emesis

Emesis should not be performed in case of corrosive poisoning because of possibility of perforation to stomach, kerosene poisoning because of the danger of aspiration pneumonia which may prove fatal, strychnine poisoning due to possibility of inducing convulsion, unconscious patients or patients with altered sensorium because of possibility of aspiration pneumonia, hydrocarbons and volatile poisoning like petroleum distillates, severe circulatory and respiratory distress, hemorrhagic tendencies (oesophageal varices, active peptic ulcer, thrombocytopenia).^[14]

Management of ingested poison when poison is in intestine

Induced purgation- Removal of unabsorbed poison from gastrointestinal tract along with intestinal content by means of purgation induced by laxatives or cathartics is called as induced purgation. The goal of purgation is to clean GIT from unabsorbed ingested toxins.

As per Ayurveda, in case of inanimate poison situated in intestine purgation (*virechana*) should be performed. *Acharya Susruta* has mentioned *Indigfera tinctoria* (*Niliniphala*) for this purpose.^[15]

Safety and efficacy of *Indigofera tinctoria* can be assessed by following points:

- i) *Acharya Charak* has mentioned *Indigfera tinctoria* among *virechan dravya* which are used as potential purgatives.^[16]
- ii) *Acharya Susruta* also has mentioned it among induced purgative (*adhobhagahar dravya*).^[17]
- iii) *Acharya Bhawa Mishra* mentions the purgative property of *Indigfera tinctoria* along with curative action in case of poisoning.^[18]

Indications of induced purgation

Purgation should be performed in case of iron or heavy metals poisoning, intake of sustained released or enteric-coated drug formulation, ingestion of a poison that is known to be poorly absorbed by activated charcoal, and intake of drugs that may form concretions like salicylates, barbiturates, carbamazepine etc.^[19]

Procedure of induced purgation

In case of poison situated in intestine (*pakwasahya*) or cases where emesis is contraindicated, 100 ml decoction

of 10 gm *Indigofera tinctoria* along with 10 gm *ghee* for induced purgation till the symptoms of poisoning subsides.

Contraindication of induced purgation

Purgation should not be performed in case of GIT hemorrhage, recent bowel surgery, intestinal obstruction, perforation or ileus, hemodynamically unstable patient, patients with unprotected airways etc.^[20]

Prophylactic management of poisoning

After decontamination of poisonous materials from gastrointestinal tract, *dushivishari agad* should be given 5gm twice a day as curative and prophylactic medicine. *Acharya Dalhan* on *susruta samhita* commentary illustrated that *dushivishari agad* should be given with *dahi* (curd) or with curd mixed with honey.^[21]

CONCLUSION

As the acute poisoning is major cause of morbidity and mortality throughout the world, there are many modern procedures to carry out for its management. But in respect of *ayurvedic* management, induced emesis and purgation can be followed for the cases where it can be applied appropriately. *Lagenaria siceraria* can be used for inducing emesis in cases of poison situated in stomach as *acharyas* has mentioned its emetic property. Furthermore *Bhawaprakash* has confirmed its safety by mentioning its *hima* (cold) and *hrudya* (cardiotonic) property along with emetic action. For induced purgation, *Acharya Susruta* himself has indicated *Indigofera tinctoria* in case of poison situated in intestine. Efficacy and safety of *Indigofera tinctoria* can be confirmed by reviewing its properties as per *bhawaprakash nighantu*. *Dushivishari agad* should be used as curative and prophylactic medicine.

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