

AHIFENA (PAPAVER SOMNIFERUM) TOXICITY AND ITS DIFFERENT TYPES OF YOGAS- A REVIEW

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ABSTRACT

Ahifena (papaver somniferum) is a drug which is commonly grows in well drained fertile soil, natural to slightly acidic in reaction, deep clay loam soil rich in organic matter. It is commonly known as poppy plant. In ancient times, it was through to be similar to the foam coming from the mouth of the snake. it is exudate from the fruit. Leaves – many amplexicaul, lobed, dentate or serrate, linear-oblong or ovate oblong. Ayurveda has categorized this drug under upavisha and its various toxic symptoms are given in the various text books. But the judicious use of ahifena after purificatory procedure help to combat many disease. This drug is also found to be used in different dosage forms,

both for internal and external application. This article is an attempt to review the toxic symptoms due to the *ahifena* and the different *yogas* and therapeutic effect of the *ahifena*.

KEYWORDS: *Ahifena*, papaver somniferum, somniferous poison, toxicity, upavisha, different dosage form, other yogas.

INTRODUCTION

The ancient science, Ayurveda boasts of many numbers of drugs which have been used for different diseases. In Ayurveda, Afeem or poppy plant commonly known as an effective herbal medicine with a variety of uses and fast action on the human body organs. So by using different plant part a lot of health benefits can be obtained with this subtoxic but beneficial herb. The drug categorized as vishas and upvishas, which means poisons and semipoisons, also has dynamic potential provided the proper purificatory procedure are done. Ahifena is one such drug in the class of upavisha, which is used in various kalpanas of ayurvedic pharmaceuticals. There are four varieties of Ahifena (papaver somniferum) as white, black,

yellow and coloured. These varieties possess different properties and actions.^[1-8]

It comes under somniferous poison because it is used to reduce pain and induce sleep. It includes two sets of symptoms i.e. excitement and narcosis. *Papaver somniferum* is a plant which grows in India. Opium is obtained from the incision taken on the unripe capsules of the white poppy which is a dried juice. The ripe and dry poppy capsules contain only a trace of opium which is used for the sedative and narcotic effect. It contains heroin (brown sugar) is a synthetic derivative of opium and potent narcotic analgesic but with very high addiction potential.

Pethidine is a synthetic analgesic having a morphine like action.^[9]

MATERIALS AND METHODS

Sign and symptoms of Ahifena toxicity

The poison acts on CNS. Causing 1st a stimulation and later a depression followed by narcosis.

Effects can be described in three stages i.e.

- 1) Excitement
- 2) Stupor
- 3) Narcosis

1) Stage of Excitement

This stage is absent if the dose taken is large. In adults there is a sense of wellbeing of brief duration. Laughter, hallucinations and rapid heart rate. In children may occur.

2) Stage of Stupor

Weariness, headache, giddiness, sense of weight in the limbs, diminished sensibility, and a strong tendency to sleep from which the patient can be roused by painful stimuli. The pupils are contracted, itching sensation felt over the skin, face and lips cyanosed, pulse and respiration are normal.

3) Stage of Narcosis

The patient goes into deep coma. The muscles are relaxed and reflexes are abolished. Pin point pupils are seen do not react to light. Reduced blood pressure. Pulse is rapid and slow breathing. Cold skin i.e. hypothermia.

In a fatal termination there is marked cyanosis, froth coming out from mouth, cheyne stroke breathing i.e. sighing and irregular breathing. Pulse is imperceptible, coma deepens and death results from asphyxia due to respiratory paralysis. Opium smell from breath.^[10]

Fatal dose: 200mg of morphine.

Opium of 2gms Codeine of 0.5gm Pethedine of 1.gm^[11]

10 ml of tincture of opium

Fatal period: 9-12hrs^[12]

Diagnosis

- Opium smells from mouth
- Pin point immobile pupils
- Cheyne strokes respiration
- Slow pulse
- Cyanosis
- Froth at nose and mouth
- Moist skin
- Hypothermia

Differential Diagnosis^[13]

- Intracranial lesions such as cerebrovascular accidents especially pontine haemorrhage
- Metabolic conditions such as uraemic coma
- Acute Alcohol poisoning
- Carbolic acid poisoning
- OP poisoning
- Barbiturate poisoning
- Carbon monoxide poisoning
- Epileptic coma
- Hysterical coma
- Diabetic coma
- Brain trauma
- Encephalitis
- Meningitis

- Cerebrovascular accidents:- it is mostly occur in elderly hypertensive persons., and there is onset of hemiplegia. Unequal pupils. Stertorous breathing. There is a hyperpyrexia due to stimulation of the heat regulating centre in the 3rd ventricle.

Treatment^[14]

- Emetic usually fail due to depression of the vomiting centre
- The stomach should be washed out 1st with water, the return being retained for analysis, and then with potassium permanganate.
- Nalorphine (lethidrone) is a specific antidote to morphine and related opium alkaloids. It is given IV in a dose of 5-10 mg every 15 minutes till the pupils begin to dilate.
- The drug of choice is now a days Naloxone with a dose of 0.4 to 0.8 mg IV or IM.

Postmortem appearance:^[15] It is external or internal.

Externally

- The smell of opium is present, the face is deeply cyanosed, almost black.
- The finger nails blue; and the neck veins engorged and distended
- The PM lividity is almost black and is better seen in a fair skinned body.
- There is a froth at mouth the nose and mouth, but neither so fine nor copious as in drowning.

Internally

- The stomach may show the presence of small, soft, brownish lumps of opium. The trachea, bronchi, lungs and brain exhibit a marked degree of venous congestion.

In cases of suspected opium poisoning, blood, bile and should be preserved in addition to routine viscera.

Medicolegal Aspect

- Death from this poison is so painless that it is the poison of choice for suicidal purposes.
- It is rarely used for the homicidal purposes.
- It is sometimes used for infanticide.
- Accidental poisoning may occur from drugging of infants and children to keep them quiet or from overdose of medicinal preparations.

Opium addiction

Opium addiction occur in the result of regular use of opium or its preparations either medically for relief of pain or otherwise as aphrodisiac. The result in chronic poisoning characterised by physical, mental and moral degenerations.

Different *Kalpanas* with its ingredients and indications are listed in the tables below.

Properties of Ahiphena

Properties	Ahiphena Properties
<i>Rasa</i>	<i>Tikta, Kashaya</i>
<i>Guna</i>	<i>Laghu, Ruksha, Sookshma, Vyavayi</i>
<i>Virya</i>	<i>Ushna</i>
<i>Vipaka</i>	<i>Katu</i>
<i>Doshakarma</i>	<i>Kaphavatahara</i>
<i>Karma</i>	<i>Madakari, Grahi, Sukra Sthambhaka</i>
<i>Indication</i>	<i>Atisara, Kasa, Darunaka, Jvara, Nidranasha</i>

Uses of Ahifena

External Use	
<i>Lepa Kalpana</i>	As a single drug or mixed with other drug used as lepa acts as an analgesic, anti- inflammatory. Used in inflammation of joints, pleuritic and inflammation of many parts of body.
Internal use	
Nervous System	As it is <i>vyavayi</i> , <i>vikashi</i> acts as an analgesic; sedative and anticonvulsant. As it stimulates vomiting centre in the brain, vagus nerve and centers of contraction of pupils.

Yogas containing Ahiphena at a glance

Sl.no.	Name of Dosage Form	Name of the Yogas
1.	Rasoushadis	Nidrodaya rasa, Vatebhakesari Rasa, Setubandha rasa, Trivikrama Rasa, Agnikumara Rasa, Grahanikapata rasa, Agastya sutaraja rasa, Agastisutaraja rasa, Agasthyabhutaraja rasa, Sameeragajakesari rasa, AmavatadiVajra rasa, Atisarebha Simho rasa, Atisaraharo Rasa, Ashwinikumarako rasa, Ashwinikumara Rasa, Grahanikapata rasa, Shankodara Rasa, Hingulavati, Kaminividravana rasa, Mahavataraja rasa, Atisaravarana Rasa, Vajrakapata Rasa, Karpura Rasa,
2.	GutikaYogas	Shukrasthambana Gutika, Visuchikahara vatika, BhuvaneshwariVati, SimhasyadiVati, AbhrakadiVati, Grahanishardula vatika, Dugdhavati, Lavangabhraka Yoga, JathiphaladiVati, VrushyaVati, Ahiphena Vati, Chayilyadi Gutika, KarpuraVati,
3.	Netra Yogas	Netra Bindu

4.	LepaYogas	Parshwashoolanashaka lepa, RasanjanadiLepa
5.	ChurnaYogas	Ajajyadi Churna, Gangadhara Churna, Markanteya Churna, Ahiphenadi Churna
6.	VartiYogas	KanakamuladiVarti
7.	Arishtaasava Yoga	Ahiphenasava
8.	PakaYogas	Ahiphena Paka
9.	Patent Drugs	Dysentrol Tablet, Dysentrol Syrup

YOGAS CONTAINING AHIPHENA USED FOR DIFFERENT DISEASES

Gastrointestinal diseases

Medicine	Indication	Matra	Anupana
Setubandha rasa (RSS)	Jwaratisara	½ to 1 tab	Ardraka Swarasa
Trivikrama Rasa (RSS)	Ama, Raktatisara	½ Ratti Tab = 1 tab in every 3 hrs or churna with madhu	Madhu
Grahanikapata rasa (RSS)	Grahani, Tivra Atisara, Mandagni, amapachana	125-250 mg, 3 times	Jeeraka(3gm)+Madhu(6 gm)
Agastya sutaraja rasa (Y.R)	Niramagrahani, Chardi, Kaphavatavikara, Agnimandhya, Pakvatisara	125-250 mg, TID	Trikatu, Madhu
Agastisutaraja rasa (RSS)	Vedanahara, pakvatisara, samgrahani	½ ratti sized tab = 1-2 tab for 3 times	Jeeraka, jathiphala churna for atisara, trikatu/Honey for mandagni, vamana
Agasthyabhutaraja rasa (RSS)	Grahani, Pravahika, Atisara	1 ratti	Maricha Churna
Atisaraharo Rasa (RSS)	Atisara	2-3 ratti	Honey
Grahanikapata rasa (RSS)	Samgrahani, atisara, mandhagni, amapachana	1- 2 ratti for 3 times	Jeeraka churna (3 Masha) and Honey (6 Masha)
Shankodara Rasa (RSS)	Rakthatisara, Raktharsha, Pakvatisara, Amapachana	½ - 1 Ratti for 3- 4 Times	Navaneeta, Takra
Hingulavati (RSS)	Amapachana, udarashoola, Atisara, mandagni, bahumutra	½ - 1 ratti for 2- 3 times	Jala
Mahavataraja rasa (RSS)	Kasa, Hikka, Atisara, Grahani, Pramehapidaka	1 ratti tab = ½ - 1 tab for 2 time	Jala
Atisaravarana Rasa (BR)	Atisara	1 Ratti	Jala
Vajrakapata Rasa (BR)	Atisara	3 Ratti	Madhu
Grahanikapata Rasa (BR)	Amatisara, Raktatisara	1-2 ratti	Madhu
Karpura Rasa (BR)	Atisara, jwaratisara, Rakthatisara, grahani	250 mg pills = 1-2 tab	Madhu, Jala
Karpura rasa (RSS)	Jwaratisara, atisara, grahani	½ - 1 ratti for 3 times	Jala
SimhasyadiVati (RSS)	Pravahika, Amaja Raktasrava, Rakthatisara, Raktavamana	½ ratti tab = 1 tab for 2 -3 times	Dugdha, Jala
AbhrakadiVati (VrihanigantuRatnakara)	Grahani	Maricha Size= 1 tab for 2	Chitraka Kwatha

		times	
Grahanishardulavatika (B R S)	Grahani, Atisara, Daruna Pravahika	250 mg As per dose	

Digestive system	It reduces salivation, lowers appetite, It reduces blood sugar & bile. The special property of morphine is to reduce pain. It induces constipation by contracting abdominal muscles, stomach and intestines
Circulatory system	It reduces the heart rate also increases the strength of the heart, it is useful in cardiac asthma and in cardiac pain. It acts as hemostatic. Hence is used in internal bleeding disorders, mainly internal.
Respiratory system	It is a depressant of the respiratory system
Urinary system	It is useful in Ikshumeha.(decreases sugar in urine)
Reproductive system	As its gunas (properties) reduces all the dhatus and brings impotency. It is useful in those men in premature ejaculation.
Skin	Due to its ushna veerya, it acts as diaphoretic and is useful in sheetajanya effects
Body Temperature	It is used as an antipyretic and especially in fever associated with chills when often other medicines are not effective. It is useful in pyrexia in filaria.
Eyes	It increases the intraocular pressure

Rasayana and Vrushya/Sukrasthambana

Grahanishardula Vati (RSS)	Grahani, Agnimandhya	125 mg	Takra
Dugdha vati (B R)	Daruna Shotha, Grahani, Atisara, Jirnajvara.	60-120 mg	Milk(Sotha), Vijayaswarasa in grahani.
Dugdha vati (RSS)	Shophayuktha grahani, atisara, vishamajvara, mandagni	½ ratti tab = 1 -2 tab for 2 to 3 times	Ksheera
Lavangabhraka Yoga (Si. Yo. Sam)	Grahani, Mandagni, Pravahika, Deepana, Pachana	3 ratti tab = 1-2 tab for 3-4 times	Jala
Jathiphaladi Vati 1 (RSS)	Pakvatisara, Grahani, ajeerna, Visoochika	½ Ratti Tab = 1 tab for 3 times	Takra or Jala
Jatiphaladi Vati 2 (RSS)	Grahani, Atisara, Gudarogas, Amatisara,	500 mg	Madhu
Jathiphaladi Vati 3 (RSS)	Madhumeha, Athisara, Mutratisara	½ ratti tab = 1 -2 tab for 2 times	Goksheera, Arkachurna
Ahiphena Vati (BR)	Raktaatisara	1 Gunja	Jala
KarpuraVati (Si Yo Sam)	Pakvaatisara	2 gunjapramana tab = 1 -2 tab	Jala
Ajajyadi Churna	Grahani, Rakthajatisara, jwaratisara	1-2 g	Jala
GangadharaChurna (BR)	Atisara, Grahani, Jvara	1. 2 g	Jala
MarkanteyaChurna (BR)	Grahani, Dhatukshaya, Balakshaya	1 g	Sharkara
Ahiphenasava (BR Athisara)	Atisara, Visuchika, Pravahika	5- 10 Drops	Jala
Dysentrol Tablet	Acute and Chronic Diarrhoea, Amoebiasis	1-2 tab tid	

Medicine	Indication	Matra	Anupana
Nidrodaya rasa (RSS)	Rasayana, Shukrasthambana	2 ratti tab = 1-2 tab for night time	Ksheera
Ashwinikumarako rasa (anupana Tarangini)	Baladayaka, veeryavardhaka	1 tab 2 times	Jala
Kamini vidravana rasa (RSS)	Mandagni, Dhatuksheena	½ ratti tab = 1 tab for night time	Ksheera
Shukrasthambana Gutika (RSS)	Shukrasthambana, Impotency, Pravahika	1 ratti tab = 1 tab for night time	Ksheera
Vrushya Vati (RSS)	Vrushya, Impotency	½ ratti tab = 1-2 tab	Ksheera
Markanteya Churna (BR)	Grahani, Dhatukshaya, Balakshaya	1 g	Sharkara
Ahiphena Paka (RSS)	Kshaya, Krushatha, Rasayana,	2 ratti tab = 1-2 tab at night time	Ksheera

Respiratory diseases

Medicine	Indication	Matra	Anupana
Vatebhakesari Rasa (RSS)	Pneumonia, Shwasa, Kasa, Sannipathaja Vyadhi, Atisara, Raktapradara	1/8 ratti tab = 1-3 tab for 2- 3 times	Honey, Ardraka Rasa
Mahavataraja rasa (RSS)	Kasa, Hikka, Atisara, Grahani, Prameha pidaka	1 ratti tab = ½ - 1 tab for 2 time	Jala
Parshwashoola nashaka lepa (RSS)	Pneumonia	Lepa on Chest	
Ahiphenadi Churna	Kaphaja Kasa,	1 Ratti for 2 times	Honey

DISCUSSION

Ahiphena is having Tikta, Kashaya rasa and having laghu, Ruksha, Sukshma gunas because these properties it is indicated in Atisara, Jvara, Kasa, Grahani. Ahphena is having kaphavata shamaka. If properly used it is one of the valuable drugs and the most dangerous if misused. It is the best drug having Sthambana action. It is used in different diseased conditions both for internal and external.

CONCLUSION

Maximum formulations containing Ahiphena are indicated for Gastro-intestinal diseases. The petals are bitter, expectorant, sedative and are useful in coughs. The Opium obtained from the fruits is bitter, astringent, sweet, Constipating, Aphrodisiac, Sedative, Narcotic, Antispasmodic and nervine Tonic. So it is commonly indicated for Atisara, Vajikarana, Respiratory diseases. It is good for internal haemorrhages, decrease secretions, restrain tissue changes and used as analgesic. As folk medicine Seeds and leaves are used to treat old cancer and scirrhus tumors. The seed, either as a paste or as an unguent, is said to be useful in tumors and cancerous ulcers. Because of Narcotic action in many countries cultivation is

considered as illegal.

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