

PARSIK YAVANI (HYOSCYAMUS NIGER): A REVIEW

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ABSTRACT

Poison is a substance, which may be liquid, solid or gas, which when administered or brought into contact with any part of it, leads to injury to health or destruction of life by its action. If a particular dose of substances produces a beneficial effect, but the same dose also produces a severe toxic effect, called poison. Poison has a low therapeutic index. In Ayurveda, poison are two types: *Visha* and *Upvisha*, in which *Visha* is fatal and *Upvisha* is a less virulent poison. In *Rasendra sangraha*, *upvisha* are numbered as seven and eleven in *Rasa Tarangini*. *Parsik yavani* (*Hyoscyamus niger*) is one of them. *Hyoscyamus niger* commonly known as *Parsik yavani* is considered as poisonous plant and classified under *Upvisha* (Less virulent poison). According to the Drugs and cosmetics act, of 1940, *Hyoscyamus niger* comes under “Schedule E and Schedule E (1): Poisonous Substance under Ayush System. In *Shodhal Nighantu*, *Parsik yavani* is indicated in *Koshtha shool* (Abdominal pain), *gulm*, *dipan* and *pachana* etc. Because it is a poison, so, it causes vomiting, urinary retention, tachycardia, pyrexia, drowsiness, slurred speech etc., so it should be used very carefully. *Parsik yavani* also have medicinal properties and it is used as *jantunashana* (Anthelmintic and antiparasitic) and *krimishulnuta* (Abdominal pain due to parasitic infection). *Parsik yavani* are found in many Ayurvedic formulations.

KEYWORDS: *Hyoscyamus niger*, *Parsik yavani*, *Upvisha*, *Kriminashana*.

INTRODUCTION

Visha has been defined as a substance that is harmful or fatal to life and possesses properties like *Vyavi*, *Ushna*, *Thikshna*, *Ruksha*, *Sukshma*, *Ashukar*, *Anirdeshya rasa/ Apaki*, etc., and the drugs which possess these properties are called “*visha*” and those which are less in virulence than *visha* are called “*Upvisha*”.

The first classification of *visha* is found in, ‘*Rasarnava*’ which appears to be the first text to mention about ‘*Visha*’ and ‘*Upvisha*’ classifications. After ‘*Rasarnava*’, ‘*Rasa Ratnakar*’, ‘*Rasendra chunamani*’ and ‘*Rasa Ratna Sammurchaya*’ have mentioned about five ‘*Vishes*’ while other texts like ‘*Rasendra Chintamani*’, ‘*Sarangdhar Samhita*’, ‘*Bhava Prakash*’ and ‘*Ayurveda Prakash*’ have enumerated nine *dravyas* as ‘*Vishas*’. ‘*Rasarnava*’ mentioned five drugs in the *Upvisha* group, while ‘*Rasa Ratna Samuchhaya*’ and ‘*Rasendra Chintamani*’ enumerated seven drugs. In later texts like ‘*Ayurveda Prakash*’ and ‘*Yogaratanakar*’ it is number nine while in ‘*Rasa Trangini*’ it has gone up to eleven.

Parsik yavani is considered an *Upvisha* (Poisonous plant). It is fatal for cattle and birds. According to Ayurveda, *Parsik yavani* (*Hyoscyamus niger*) acts as *madak* (Heady) and *vednasthapana* (Analgesics).^[1] It is an erect, hairy, annual, or biannual plant growing up to 1 meter to 2 meters. It grows mainly in temperate regions. *Parsik yavani* requires proper sunlight for growth as it can not grow in the shadow. Leaves radical and cauline, sinuate-dentate, or pinnatifid. Flowers bisexual, regular, pale yellowish-green or yellowish-white with dark purple (Reticulation) in the center, sessile or subsessile, in axillary or terminal scorpioidal cymes. Capsules encircled by the globular base of enlarged calyx. Seeds oval, kidney or knee-shaped, about 1.5 mm diameter, brown, marked with fine but conspicuous reticulations. Flowering and Fruiting occur April-September.^[1]

According to *Bhav Prakash*, the quality of *parsik yavani* is similar to *yavani* and act as *paachni*, *ruchya*, *grahini*, *guru*, and *madini*. He classified *parsik yavani* as *haritakyaadi varga*. Acharya Privrata Sharma classified *parsik yavani* in *haritakyaadi varga*. Acharya Kaidev indicated *parsik yavani* in *jantunashana* (Anthelmintic and Antiparasitic) and *krimishulnuta* (Abdominal pain due to parasitic infection).

Synonyms (Paryaya)^[2]: *Yaavani*, *Turushka*, *Madkarini*, *Khurasani Ajwain*, *Deepya*, *Kuberakhya*, *Chauhar*.

Dosha property^[3]: *Parsik yavani* increases *pitta dosha* due to *tikta* and *katu* characters and decreases the *Kapha* and *Vata* properties.

<i>Guna</i>	-	<i>Ruksha</i>
<i>Rasa</i>	-	<i>Tikta, Katu</i>
<i>Vipak</i>	-	<i>Katu</i>
<i>Veerya</i>	-	<i>Ushna</i>
<i>Prabhava</i>	-	<i>Madak, Vedana sthapan</i>

Modern classification

Kingdom	:	Plant
Class	:	Magnoliopsida
Order	:	Solanales
Family	:	Solanaceae
Genus	:	Hyoscyamus
Species	:	Niger

Chemical composition^[4]: The main chemical components are- Hyocyamine, atropine, scopolamine, hyoscyprin, aphoyoscine, tropine, phytin, alpha and beta belladonine, apoatropine, cuscohygrine, daturamine.

Pharmacological action^[5]: *Parsik yavani* has many pharmacological properties such as Analgesic property, antispasmodic property, antihistaminic property, sedative properties, narcotics, and anti-inflammatory properties.

Uses: Although *Parsik yavani* is a poisonous plant, but after *shodhana* (purification) and in proper dose, it is used as medicine. Some medicinal uses of *Parsik yavani* are-

- **Koshtha shool**: Relieve spasmodic pain in the stomach and intestine.
- **Jantunashak/Kriminashak**: Useful in intestinal worm infection.
- **Hridya**: useful in heart diseases.
- **Pachni**: Helpful in the digestion of food.
- **Ruchya**: Make interest in food.
- **Gulma**: Helpful in flatulence, abdominal tumors etc.
- **Agnikrita**: Improve digestive strength.

Parsik yavani soothes nerves so used in neuralgia. It has narcotic effects so used to induce sleep and as analgesics. It reduces sexual desire and excitation. Seed is used in treating myalgia and leaf oil is used externally to remove scar on tissue.

Other important uses

- It is useful in treating parasitic worm infections.
- It is useful in nervous disorders such as Parkinson's disease, neuralgia, etc.
- Relieves in arthritic pain.
- Relieves the spasmodic pain.
- Useful in the dilation of the pupil.

Systemic actions^[6]: *Parsik yavani* is useful in *Unmada* (Psychological disorders), *anidra* (Insomnia), *pralapa* (Restlessness), odontalgia, bleeding gums, dental caries, orchitis, rheumatoid arthritis, dyspepsia, worm infestation, cardiac debility, flatulence, colic, asthma, bronchitis, neuritis, fever, meningitis, amenorrhea, urinary tract infection, and irritability.

- **Respiratory system:** *Parsik yavani* is indicated in cough and other types of respiratory disorders.
- **Digestive system:** It is useful in intestinal worms' infection and spasmodic pain.
- **Nervous system:** Indicated in neurotic diseases such as insomnia, insanity, etc.
- **Circulatory system:** It is indicated as a coagulant so used for bleeding disorders.
- **Excretory system:** Indicated in renal calculi, kidney, and bladder inflammation.
- **Reproductive system:** Indicated in nocturnal emission.

Yoga (Drug which has *parsik yavani*)

- Myrolax Forte
- Capsule Pulsinuron
- Tab. Sumanas
- *Parashiyaadi Churna*

Useful parts: Leaf, seed, and flowers.

Safe dose: ¼ - 1 gm. *Churna*

Tincture- 3-6 drops.^[7]

Toxicological effects: Overdose and without proper *shodhan*, effects as toxic. If consumed in excessive doses can cause vertigo, pharyngitis, insanity, unconsciousness, coma, severe

pallor, nausea, weakness, and laxity in the body. The plant especially seeds in large doses produces poisonous effects similar to *Datura* poisoning such as dryness of mouth, giddiness, delirium, blurriness of vision etc.^[8] It causes dizziness, dry mouth, thirst, difficulty in swallowing, and speaking, warm flushed skin, dilated pupils, blurred vision, and photophobia, vomiting, urinary retention, tachycardia, pyrexia, drowsiness, slurred speech, hyper-reflexes, auditory, visual, or tactile hallucinations, confusion, disorientation, delirium, agitation, and combative behaviour. In severe cases, there may be hypertension, coma, and convulsions.

Some studies also showed that *Parsik yavani* has ADRs.^[9]

Caution: *Parsik yavani* should be avoided during pregnancy and lactation. It is also avoided in tachycardia, heart failure, fever, urinary retention, etc.

CONCLUSION

Parsik yavani (*Hyoscyamus niger*) also called Henbane is a poisonous plant. In Ayurveda, it is considered as *Upvisha* (Less virulent poison) and has bitter, pungent in taste (*Rasa*), and pungent in post-digestive effect (*Vipaka*) and hot potency (*Virya*). It alleviates *Kapha* and *Vata Doshas* and vitiates *Pitta Dosha*. It possesses a dry attribute (*Guna*). It has many chemicals such as Hyocyanine, atropine, scopolamine, hyoscyamine, apohyoscyamine, and tropine. It causes dizziness, dry mouth, thirst, difficulty in swallowing and speaking, warm flushed skin, dilated pupils, blurred vision, etc. It has many medicinal values such as Analgesic properties, antispasmodic properties, antihistaminic properties, sedative properties, narcotics, and anti-inflammatory properties, so after proper *shodhan*, it can be used as a drug.

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