

**Role of Kuchala according to Agadatantra in Ayurveda.**

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**Abstract:-**

*Ayurvedic medicine is one of the world's oldest holistic healing system. It is based on the belief that health and wellness depend on a dedicate balance between the mind,body and spirit.*

*Agadatantra is one of the eight branches of Ayurveda. There is in detail study of agadas i.e. vishavirodhi dravya or vishavirodhi kalpa which are used since human history itself. It deals with food poisoning, snakebites, dog bite etc.*

*Kuchala is one of the upavisha from loganiaceae family and it is used in many ayurvedic preparation. It is the evergreen tropical tree. This tree is wildly available in Konkan regionof India. It is being used as medicine in Ayurveda,Homeopathy etc. Seeds are poisonous and can produce I'll effects, greenish- grey to grey colour. It contains Alkaloids- Indole alkaloid,strychnine and Brucine,Monoterpenois, Glycoside(loganin), Vomicine.*

*Botanical Name:- Strychnos nuxvomica.*

*Family:- Loganiaceae,Keraskara kula*

**Introduction:-**

**T**he dried seeds of *Strychnos nuxvomica* are commonly known as Kuchala. Kuchala contain 2.6% to 3% total alkaloid, out of which 1.25% to 1.5% is strychnine, 1.7% is Brucine and the rest are vomica and lgasurine.<sup>1</sup>

It is a thorny tree native to Indian subcontinent. The poisonous derivatives of the tree are seeds and bark. Kuchala is acknowledged for many therapeutic properties. One is that it helps to prevent constipation and proves to be beneficial for enhancing appetite. It achieves this by boosting intestinal mobility and intensifying gastrointestinal functions. Due to the presence of certail compounds that helps to minimize blood sugar levels,Kuchala is assumed to be good for controlling diabetes as well. It also helps in lowering stress and keeps the brain calm, thus becoming a natural and organic sedative people who have insomnia. It is also acts as a pain killer due to its vatagha property.

It's diuretic attributes helps control and moderate several urinary problems, such as burning sensations or itching during urination,usually stemming from infection. Literature review revealed that *Strychnos nuxvomica* has been used traditionally for treating diabetes.<sup>2</sup>

According to Ayurveda, Kuchala has been purified before use throughout history. The purification or shodhana was considered of paramount importance and had to be done using specific substances only.

**Vernacular names of Kuchala:-**

- Hindi- Kuchala
- English- Nux vomica
- Telugu- Mushti Vittulu
- Bengali- Kunchila
- Gujrati- Zerkochala
- Tamil- Yettikottai
- Malyalam- Kaajjeel
- Arabian- Ajaraki

**Nux vomica or Kuchala qualities:- 3**

- Rasa( Taste):- Katu (pungent), Tikta (bitter)
- Guna (qualities) :- Laghu- light to digest
- Vipaka:- Katu – undergoes pungent taste conversion after digestion.
- Veerya:6 Ushna- hot in potency

**Effect of Kuchala on tridoshas:- 4**

Kapha Vata hara:- It balances kapha and vata. Increases pitta dosha.

**Different varieties of Kuchala:-**

In Andhra Pradesh, it's other species of same genus are used in the name Kupeelu.

**Distribution:-**

Throughout tropical India, Uttar Pradesh, Bihar, Orrissa and west bengal up to a height of altitude of 1350 m

**Category:-**

Upavisha

**Major chemical constituents:- 5**

Brucine, Strychnine and Vomisine; kajjine and novacine ( N Methyl Pseudobrucine); strychnine and asostrychnine; Cuchiloside loganic acid etc.

Hemidesmine-2

( Reference: Illustrated Dravyaguna Vijnana, Vol.II , by Dr JLN Shastry)

**Toxic symptoms:-6**

Taking nux vomica for more than a week, or on high amount of 30 mg or more, can cause severe side effects like restlessness, dizziness, back stiffness, spasms of jaw and neck, convulsions, seizures, wheezing, breathing problems, liver failure and death.

Due to stiffness, it causes 3 stages:-

- 1) Ophisthotonus- Backward bending of body.
- 2) Emprosthotonus- forward bending of body.
- 3) Pleurosthotonus- lateral bending of body.7

**Mechanism of action:-8**

Strychnine stimulates all the parts of CNS especially anterior horn cells of spinal cord causing greatly increased reflex excitability so that even slight stimulus like noise, light or air etc.causes generalised contractions of muscles.

Brucine exerts similar action but to a mild degree ( 6 to 10%) and the amount of loganin present is too less to produce toxic effects.

**Toxicological Profile:-9**

Type of poison Ayurveda:- Sthavar, Vanaspatij,Upavisha.

Modern:- Neurotic spinal poison

Fatal dose:- 1-2 hrs

**Treatment:-**

According to Ayurveda.Antidote of Kuchala

Paribhadra:- Erythrina Variegata is used as an antidote in Kuchala ( Strychnos nux vomica) poisoning ( P.V. Sharma)

Cow milk and cow ghee

Vamana

Vata and kapha shamak chikitsa.

According to modern science,

Mephenesin- 3mg/kg body wt. by IV drip

Diazepam :- 2.5 mg

**Antidote:-** Barbiturates

Artificial respiration and oxygenation and supportive therapy should be given.

**Discussion :-**

Purified Kuchala is used for pain management in ayurveda due to its ushna veerya. So it acts like a pain killer in ayurveda. Kuchala is also used in diabetes.

**References:-**

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