

DELIRIANT POISON

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Deliriant Poisons

- *Datura fastuosa*,
- *Cannabis indica*
- Cocaine .

Deliriant Poisons

Datura Fastuosa –

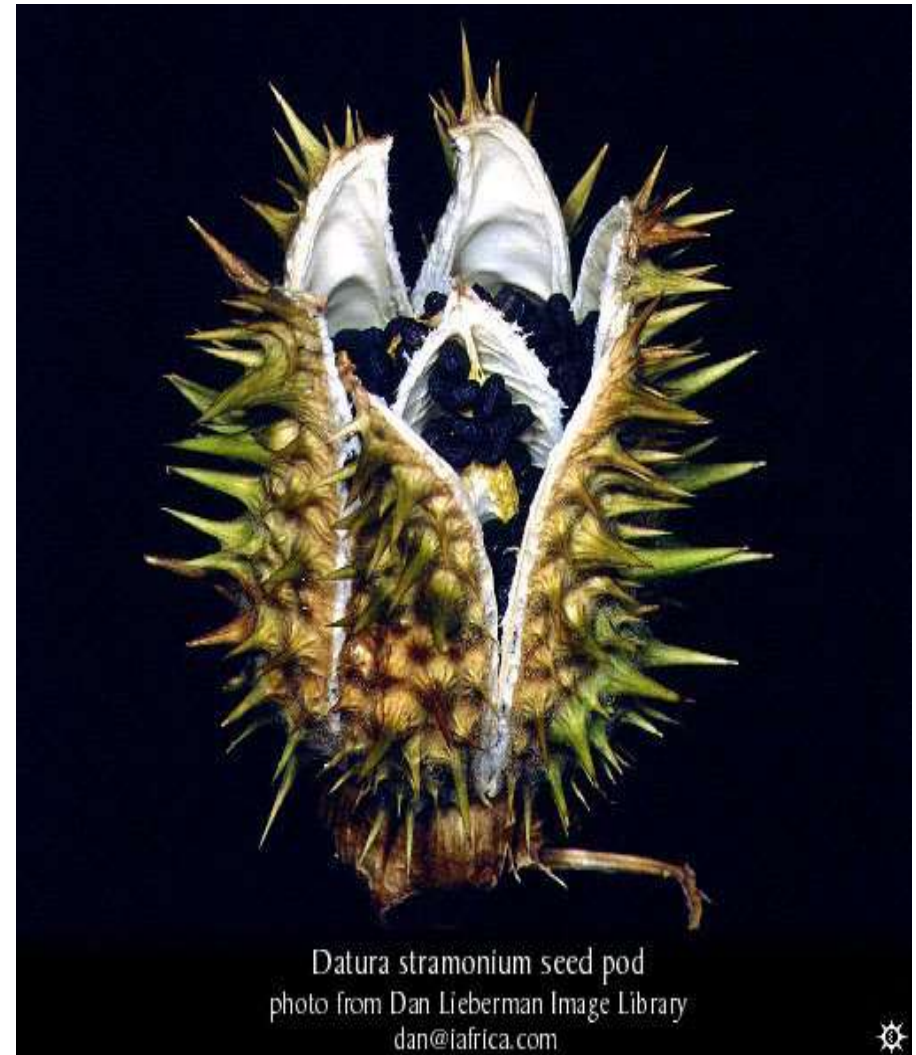
1. *Datura alba* – A white flowered plant
2. *Datura Niger* – A deep purple flowered plant.



Datura ceratocaula
from "Plants of The Gods" by Schultes & Hofmann

Datura Fastuosa

- Grow in waste lands all over India .
- All parts of the plant are poisonous.
- Bell – shaped flowers.
- Common names are–
Jimson weed
Hell's bell
Devil 's Trumpet



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Datura innoxia seeds



Datura Fruit

- Thorn Apple
- Shivashekhar
- About 500 seeds
- Yellowish Brown colour resemble capsicum seeds.



Active Principles

Total Dhatura : 0.2% - 1.4% of alkaloids

1. Hyoscine
(scopolamine)
2. Hyoscymine
3. Atropine .

Actions

The alkaloids atropine , Hyoscine and Hyoscyamine first stimulates

Higher center of the brain then motor center finally depression
& paralysis especially vital centers of medulla .

The respiration is first stimulated then depressed

The vagolytic action resulting in stimulation of the heart.

Mode of action

- Dose dependent
- Central and Peripheral Acting
- Centrally Sympathomimetic or Para sympatholytic actions

Small Dose :

Stimulated CNS causes excitement, Restlessness.

Moderate dose :

Causes Somnolence & deep Sleep .

Larger dose :

Delirium , Depression, Loss of consciousness and coma

Toxicity

Fatal dose –

100 to 125 seeds

Fatal periods –

12 to 24 hours

Stupefying dose -

50 – 60 seeds

1. Hyoscine : 30 mg

(scopolamine)

2. Atropine & Hyoscyamine : 120mg

Signs & symptoms

Dermatitis – Contact with leaves cause Dermatitis

Dysphagia – Difficulty in swallowing . Bitter taste , vomiting, burning pain stomach.

Dry skin mucous membrane –

**Dilated Pupils with loss of accommodation for near vision and photophobia.
Diplopia and absent papillary reflex**

Signs & symptoms

Delirium- Patient Mutters indistinct words , Tries to run away from his bed,, picks at the bed clothes, tries to pulls imaginary threads from fingertips and threads imaginary needles called Carphologia

Drunken gait- Giddiness , staggering gait like drunken .

Dysuria – Difficulty in micturition.

Dreadful hallucination –Auditory & visual hallucination

Drowsiness- Drowsiness followed by stupor , coma

Death due to respiratory failure .

Signs & Symptoms

Hot like Hare : Temp high up 107

Red like Beet : Flushing of face

Blind like Bat: Dilated Pupils with loss of accommodation and photophobia, Diplopia, temporary blindness.

Mad like Hen: Delirium-Patient Mutters indistinct words , pulls imaginary threads from fingertips , picks at the bed clothes called Carphologia and threads imaginary needles.

Dry like Bone: Dry skin & mucous membrane – Dryness of skin and mouth . Pulse – 120to 140 per mts .Temperature -2 – 3 degree raised & dysphagia

Treatment

Air way should be kept clear

Respiratory support for respiratory depression

Keep Quite & Dark Environment

Monitor Vitals.

Decontamination.

Gastric lavage with activated charcoal & tannic acid

Enema using sodium sulphate for purgation to remove Seeds

For urinary retention –Cauterization

Peritoneal dialysis or Hemoperfusion to hasten elimination

Treatment

Physostigmine -2 mg slow intravenously.

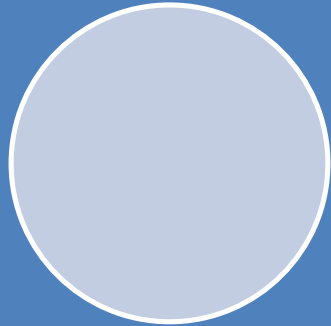
Pilocarpine - 5 – 15 mg subcutaneously .

Seizures & agitation – Controlled by iv diazepam.

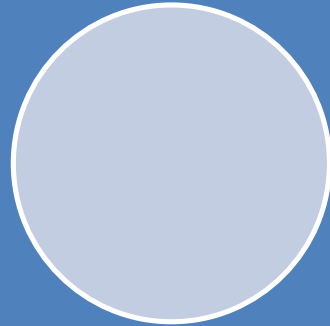
Delirium is controlled by
short acting barbiturates .

Peritoneal dialysis or Hemoperfusion to hasten
elimination

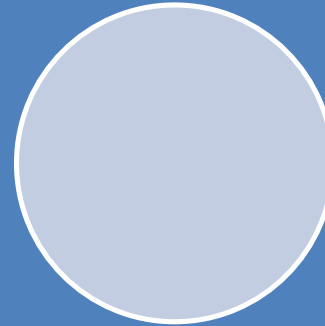
Autopsy findings -



1. Signs of asphyxia present.



2. Datura seeds & their fragments may be found in stomach and intestine .



3. Esophagus, stomach , duodenum are congested.



4. The lungs are edematous



Medicolegal Importance

1. Suicidal -

It is not a suicidal poison because large fatal dose and bitter taste and distressing death

2. Homicidal –

It is not a homicidal poison because of bitter taste and seeds resists putrefaction for long period .

3. Stupefying poison -

Crushed or powdered seeds are used criminals to stupefy victim prior to robbery ,rape and kidnapping , so it is called road poison. It is given in curry , sweets ,Tea ,coffee , liquor to travelers in railway.

The victim falls asleep and his belongings are lost ,so it is called rail poison and collectively road – rail poison . Sometimes it is mixed with tobacco and smoked in pipe and rob them .

4. Abortifaciant poison –

It is sometimes used to procure abortion.

5. Accidental poison –

Injudicious use by hakims may cause accidental poisoning .

6. Love philter –

The crushed seeds are mixed with sweets and given as love philter to desired person .

Love philter is supposed to increase love between giver and taker .

7.Aphrodisiac -

The seeds are used for Aphrodisiac purpose .

8. Crushed seeds are added to enhance intoxicating properties of liquor or toddy