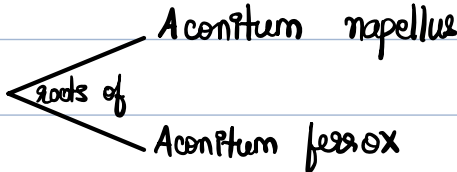


Cardiac Poisons:

ISHITA
KANODIA

- 1] *Nicotiana tabacum*
- 2] *Digitalis purpurea*
- 3] *Nerium odorum*
- 4] *Cerbera thevetia*
- 5] *Cerbera odallam*
- 6] *Cleistanthus collinus*
- 7] Quinine
- 8] Aconite

Aconite: 

- roots & seeds are most potent $\Rightarrow$ contain aconitine + ≥ 10 other alkaloids
- initial stimulation of CNS $\longrightarrow$ depression.
- Dry root is conical/tapering & shows scars/bases of broken rootlets & is arched & shrivelled
- odourless, sweet taste (later acid).

Signs & Symptoms:

- leaves rubbed on the skin $\Rightarrow$ tingling & numbness.
- odour of the plant has narcotic effect.
- pollen causes pain & swelling in the eyes.
 - burning sensation from the mouth to stomach, tingling & numbness in the mouth.
 - salivation • nausea, vomiting, diarrhoea
 - later mouth is dry, $\uparrow$ throat $\Rightarrow$ dysphagia.
 - headache, giddiness • pallor • profuse sweating, subnormal temp.
 - paraesthesia, ataxia, slurred speech

- twitching of the muscles with darting pains & cramps (& convulsions).
- **Hippus**: alternate contraction & dilatation of pupils (remain dilated later).
- Hypotension, cardiac arrhythmias
- marked general muscular weakness
- Death due to paralysis of heart &/or respiratory centres.

Fatal Dose: 1g root (2-5g aconitine)

Fatal Period: 2-6 hours

Treatment:

- 1] Gastric lavage with warm water & weak solution of iodine in KI or tannic acid.
- 2] Multiple-dose activated charcoal.
- 3] Cathartic.
- 4] Atropine (0.5-1 mg).
- 5] Symptomatic management.

PM Appearances: those of asphyxia

→ mucosa of stomach & duodenum ⇒ congestion, ecchymoses.

→ lungs, kidneys, brain ⇒ congested.

→ Aconitine is extremely unstable & is destroyed by putrefaction.

Circumstances of Poisoning:

- 1] Accidental ⇒ due to eating the roots in mistake for horseradish root
⇒ quick remedies.
- 2] Suicidal cases often occur.
- 3] Given with betel leaf to conceal its taste for homicide.
- 4] Root is used as an abortifacient.
- 5] Cattle poison, Arrow poison.