

CANNABIS

- Psychoactive compound derived from cannabis sativa called as cannabinoid.

- Δ -9-THC, cannabinol and cannabidiol

- Present in leaves, stalk, flowers and seeds

- Marijuana

- Refers to any part of the plant or extract that is used to induce psychotomimetic or therapeutic effect .

- Active principles are fat soluble
 - stored in fat cells
- Act like time release capsule
- Single dose last for seven days

Therapeutic use

- Treatment of nausea, vomiting associated with cancer
- Antiemetic
- Reduce tremor ,spasticity in patients with multiple sclerosis

Forms

- Bhang
 - Dried leaves and fruit shoot.
 - Contain 15%active principle
- Majun
 - Sweetmeat with bhang. Produce grandiose delusion.
- Ganja
 - Flowering top of female plant .25% active principle .
- Charas
 - Resinous exudate from stem and leaves.
 - 25-40%active principle..

Pathophysiology

- CB₁ RECEPTOR

- Found in brain and peripheral nerves
- Cerebral cortex, Hippocampus, Basal ganglia, Thalamus and brain stem
- Presynaptically it inhibit the release of Ach

- CB₂ RECEPTOR

- Found in macrophages and other immune system

Clinical features

- Depends upon mood, personality, environment and the dose taken
- In low doses
 - Initial euphoria with
 - Over talkativeness
 - Perceptual alteration
 - This may be followed by
 - Relaxation
 - Drowsiness
 - Hypertension
 - Tachycardia
 - Slurred speech

Clinical features

- Eyes
 - Reddening of eyes, decreased intraocular pressure
- Lungs
 - smoke deliver to lower respiratory tract similar to tobacco contain carcinogen
- Mouth
 - dryness
- Skin
 - Altered sensation of heat and cold
- Heart
 - Increase heart rate ,decreased blood pressure
- Muscle
 - Relaxation ,tingling and numbness and slurred speech

Clinical feature

- **Euphoria**
- **Impairment of cognitive function and learning**
- **Slow reaction time**
- **Motor incoordination**
- **impairment in Memory retrieval process**
- **Impair performance of complex task**
- **Hallucination**
- **Schizophrenia like syndrome**

Clinical feature in children

- Moderate pupillary dilatation
- Drowsiness(rapid onset)
- Hypotonia
- Opisthotonic like movement
- Coma
- Presence of small dark particles in the mouth (granules,leaves,resin)

Chronic use

- Amotivational syndrome
- Hashish insanity
- Run amok
- Grandiose delusions
- Impaired attention
- Memory
- Flashbacks (perceptual, somatic, and emotional)
- Increased CoHB
- Bronchitis
- Digital clubbing
- Carcinogenesis

Diagnostic test

- Urine test
- plasma levels
 - Screening and confirmatory test
 - 11-nor- tetrahydrocannabinol-9 carboxylic acid
 - Enzyme multiplied immunoassay test
 - Radioimmunoassay
 - Gas chromatography mass spectrometry

Fatal dose and fatal period

Postmortem findings

- Usual appearance of asphyxia may found.

Medico legal aspects

JIMSONWEED(DATURA STRAMONIUM)

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- Fruit containing seeds
- Also known as
- Thorn apple
- Devil's apple
- Devil's trumpet
- Loco seed
- Green dragon
 - Contain upto 500
2-3 mm kidney shaped seed

Mechanism of action

- Antimuscarinic
- Anti cholinergic
 - Toxic alkaloids
 - Atropine
 - Hyosyamine
 - scopolamine

Toxic dose

Clinical presentation

- Dry mouth
- Difficulty in talking
- Dysphagia
- Dilatation of pupil
- Dry hot skin
- Drunken gait
- Delirium
- Drowsiness
- Corn picker's pupil
 - Patient remain amnesic between ingestion and recovery
 - 24-48 hours

Treatment

- Gastric emptying
- Activated charcoal
- Antidote
 - **Physostigmine 1-2mg I/M or I/V over 2-5 min**
 - **Dose may be repeated in 20-30 min**
 - **Watch for signs of cholinergic excess**
- Diazepam
 - For agitation
 - **Phenobarbital, phenothiazine, and haloperidol should not be used**
- Catheterization
- sponge bath

Postmortem appearance

- Presence of dhatura seeds
- Congestion of GIT
- Asphyxial signs

Difference between Datura and chilly seed

Medico legal aspects

- Stupefying agent
- Accidental
- Add to country liquor
- Medicinal uses