

EXPERIMENT NO.: 12

DATE:

AIM: TO STUDY THE EFFECT OF HYPNOTICS IN MICE

REQUIREMENTS:

- Mice (20-25g),
- Syringe,
- Needle (22-24 Gauge),
- Stop watch

DRUGS:

- Pentobarbitone sodium (10 mg/ml)
- Diazepam (1 mg/kg)
- Saline (0.9% NaCl)

THEORY:

- Sedatives produce the calming effects and anxiolytic effects leading to drowsiness and reduce anxiety.
- In therapeutic dose sedative are anxiolytic but in larger doses it produce hypnosis means sleep and some of them may also produce anesthesia.

PROCEDURE:

- First selected mice divided in to three groups and each group consist three mice
- First group receive Saline (0.1 ml, i.p)
- Second group receive Pentobarbitone sodium (40 mg/kg, i.p)
- Third group receive Diazepam (5 mg/kg, i.p)
- Volume of drug injected should not exceed 0.5 ml in mice.
- The time of the onset of action is loss of righting reflex in mice i.e animal fails to uphold its normal position or falls asleep (hypnosis) is record for each animal.
- The animals are placed on their back leaving sufficient space in between two animals.
- Next, the time of recovery from sleep is recorded.
- It is the time from the loss of righting reflex and the time when animal turns to recover its normal posture.

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OBSERVATION TABLE:

Groups	Drugs	Dose	Animals	Time of Onset	Time of recovery
I	Saline		1		
			2		
			3		
II	Pentobarbitone	40 mg/kg	4		
			5		
			6		
III	Diazepam	5 mg/kg	7		
			8		
			9		

RESULTS:

- Pentobarbitone group shows loss of righting reflex means onset of action quick than diazepam than saline.
- The time of recovery from sleep is increase in pentobarbitone than diazepam than saline.

DISCUSSION:

- Barbiturates, benzodiazepine etc., induce sleep in human and animals by depressing central nervous system.
- They are called sedative and hypnotics.

TEACHER'S SIGNATURE