

EXPERIMENT NO.: 10

DATE:

AIM: TO STUDY THE ACTION OF STRYCHNINE ON FROG

REQUIREMENTS:

- Frog
- Syringe and needles
- Glass jar

DRUGS:

- Strychnine (4 mg/mL)

PRINCIPLE:

- Strychnine is a highly toxic, colorless, bitter, crystalline alkaloid used as a pesticide, particularly for killing small vertebrates such as birds and rodents. Strychnine, when inhaled, swallowed, or absorbed through the eyes or mouth, causes poisoning which results in muscular convulsions and eventually death through asphyxia.

PROCEDURE:

- Frog is weighed and strychnine (4 mg/mL) is injected subcutaneously into frog (i.e in lymph sinuses).
- After few minutes, convulsion will be observed in frog.
- If you tape the table, the frog will jump very high. This is hyperreflexia.

DISCUSSION:

- The above observations suggest that inhibits the inhibitory neurotransmitter glycine in the spinal cord and produces these effects.
- Drug like pentylenetetrazole, picrotoxin etc. also produce similar effects. However hyperreflexia may not be observed.
- These drugs inhibit activity of GABA in brain.



TEACHER'S SIGNATURE