

* P i.p. 'cocaine' 'amphetamine' = phenamine 'caffeine' 'imipramine' 'psychosedative' 'diphenylmethane' benactyzine = amizil 'morphine' 'phenobarbital' 'diazepam' 'chlordiazepoxide' 'meprobamate' 'LSD' = Delysid influence on 'reflex-motive' self-stimulation rat /IV/ /XXXII/

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The Effect of Psychotropic Agents on Self-Stimulation (Russ.).

The effect of psychotropic drugs on the septal self-stimulation reaction in rats was studied.

Methods

Levels of self-stimulation were determined in male rats (250-300 g) with monopolar electrodes implanted in the septal region of the transverse fasciculus nucleus. The effects of i.p. 0.5-2 mg/kg phenamine, 5-25 mg/kg cocaine, 15-45 mg/kg caffeine, 2-10 mg/kg imipramine, benactyzine 3-10 mg/kg morphine, 1-12 mg/kg amizil, 0.05-0.3 mg/kg LSD-25, 5-20 mg/kg phenobarbital, 1-4 mg/kg diazepam, 3-12 mg/kg chlordiazepoxide and 10-40 mg/kg meprobamate were observed.

Results

Phenamine and cocaine increased self-stimulation whilst morphine, imipramine benactyzine, meprobamate, diazepam, chlordiazepoxide, phenobarbital and LSD-25 all depressed it when given at high doses. Phenamine and cocaine probably exert their action by direct stimulation of the positive reinforcement system of the septum. The effects of psychotropic agents on systems of positive reinforcement appear to dependent on the emotive brain structures and not on structures responsible for the formation of motivations.

1 Fig. 1 Tab. 11 Ref.

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