

Vogel conflict test in rats - a behavioural assay development

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The Vogel-lick conflict test is a punishment-based test for detecting anxiolytic effects of psychoactive agents. In this punishment-based conflict test, the water-deprived subject receives a mild shock leading to suppression of a conditioned response for the reinforcement, water. The anxiolytic properties of a drug can be deduced by an increase in punished responses. In the initial experiments, we showed clearly that the equipment is fully operational; shocked animals drink less than unshocked animals and there were no significant differences between responses in 4 different cages. To further validate this behavioural assay, a dose-range (5-20 mg/kg IP) of chlordiazepoxide HCl, a benzodiazepine and anti-anxiety drug, was given to the animals before testing. The highest dose of chlordiazepoxide (20 mg/kg) was most effective in increasing the number of punished responses when compared to control animals. Vogel conflict test can be useful in evaluating anxiolytic agents and should be combined with other anxiety test models to fully identify anxiolytic agents.

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