

Late Abstracts

INCREASE OF ALCOHOL-SEEKING BEHAVIOR IN RATS PREVIOUSLY ADMINISTERED NICOTINE.

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Repeated nicotine administration engender "behavioral sensitization", that has been proposed as an important process in compulsive drug use. Evidence indicates that activation of neuronal nicotinic acetylcholine receptors (nAChRs) is involved in alcohol use behavior and increases the susceptibility to develop of alcohol dependence.

The present experiments examined the effects of nicotine-induced behavioral sensitization on alcohol self-administration in rats. Behavioral sensitization was induced in male Wistar rats by repeated nicotine administration (1.0 mg/Kg; s.c.) that consisted of nicotine injection three times a day for 10 days. During this period the control group received saline injections (0.1 ml/Kg; s.c.). Three days after the last nicotine administration, rats were challenged with saline or nicotine (0.4 mg/kg; s.c.) and the locomotor activity was measured. Then animals of both group (nicotine and control) were subjected to alcohol 6% or saccharin 0.05% self-administration protocol. The "breaking points" during a progressive ratio schedule of alcohol 6% or saccharin 0.05% reinforcement was analyzed. Repeated nicotine administration caused sensitization of motor response to a single challenge of nicotine. In the self-administration experiments, preliminary data shows that rats previously treated with nicotine increased the alcohol break point in a progressive ratio schedule and alcohol intake in a binge sessions. But these increases did not observe to saccharin 0.05% self-administration. In conclusion, repeated nicotine administration induced

behavioral sensitization and increases the break-point and binge of alcohol 6% self-administration in rats.

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