

INTRAVENOUS SELF-INJECTION OF METHCATHINONE IN THE BABOON

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Methcathinone is a phenylisopropylamine derivative that has been produced by clandestine laboratories and identified in illicit drug traffic. Methcathinone has been reported to be a locomotor stimulant and to occasion amphetamine-lever responding in a drug discrimination study with rats (Glennon *et al.*, 1987). The present study evaluated the intravenous self-administration of methcathinone in three baboons using a cocaine substitution procedure. Self-injections were available 24 h/day according to a fixed-ratio (FR) schedule and with a 3 h timeout following each injection. Doses of racemic methcathinone HCl (0.01 - 1.0 mg/kg/injection) and its vehicle were substituted for cocaine for 15 or more days. A concurrent FR schedule of food pellet delivery allowed evaluation of any changes in food intake. Self-injection of methcathinone was dose dependent. The lower doses of methcathinone, 0.01 and 0.032, maintained low and intermediate rates of self-injection, respectively. Several doses of methcathinone (0.1, 0.32, 1.0) maintained rates of self-injection comparable to cocaine. Food pellet intake was suppressed slightly during substitution of 1.0 mg/kg/injection methcathinone. Acute administration of 3.2 mg/kg in two baboons produced signs of psychomotor stimulant toxicity that included stereotypic movements, behavioral agitation, tremors, and tracking of non-existent visual objects (suggesting hallucinations). The present data indicate that methcathinone functions as a positive reinforcer in baboons and suggests that it may have significant abuse potential.

REFERENCES:

Glennon, R.A.; Yousif, M.; Naiman, N.; and Kalix, P. Methcathinone: A new and potent amphetamine-like agent. Pharmacol Biochem Behav 26:547-551, 1987.

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