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Short communication

Chronic exercise increases sensitivity to the conditioned rewarding effects of cocaine

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Abstract:
The purpose of this study was to determine whether chronic exercise alters sensitivity to the conditioned rewarding effects of cocaine. Female rats were obtained at weaning and randomly assigned to either sedentary or exercise conditions. After 6 weeks under these conditions, the effects of cocaine were examined in the conditioned place preference procedure. Cocaine produced a dose-dependent conditioned place preference in both groups of rats. Exercising rats were more sensitive than sedentary rats to cocaine in this procedure, and this effect was most pronounced at the highest dose of cocaine. These data suggest that chronic exercise increases sensitivity to the conditioned rewarding effects of cocaine.

Key words:
cocaine, conditioned place preference, exercise, rat, reward, running wheel