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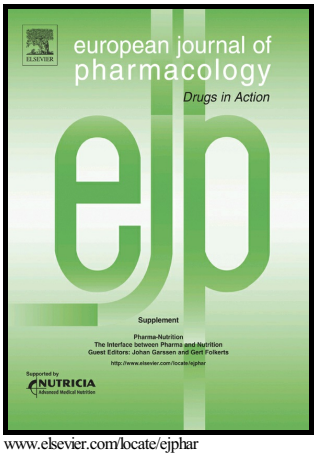

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Etizolam attenuates the reduction in cutaneous temperature induced in mice by exposure to synthetic predator odor

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Abstract

Anxiety- and stress-related disorders can be debilitating psychiatric conditions in humans. To prevent or ameliorate these conditions, reliable animal models are needed to evaluate the effects of anxiolytic drugs. Previously, we found that a mixture of three pyrazine analogues (P-mix) that were present at high levels in wolf urine induced fear-related responses in mice, rats and deer. A change in cutaneous temperature was shown to be induced by acute stress simultaneously with changes in heart rate, arterial pressure and freezing behavior, raising the possibility that cutaneous temperature could be used as an index of stress. In the present study, using infrared thermography, we showed that exposure of mice to P-mix induced a decrease in cutaneous temperature. We then examined the dose-dependent effects of an anxiolytic drug, etizolam (0–20 mg/kg), on