

Targeting Relapse-related Symptoms of Insomnia, Dysphoria, and Craving for the Treatment of Alcohol Dependence

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Protracted abstinence in alcohol dependence is a state that follows drinking cessation and acute withdrawal. It is associated with activation of brain stress systems in the extended amygdala, notably the expression of corticotropin releasing factor (CRF). Clinically, protracted abstinence is characterized by disturbances in mood and sleep and craving, all of which have been identified as precipitants for drinking relapse. Gabapentin is a calcium channel/GABA-modulating drug that has been shown to normalize GABA-CRF interactions in the extended amygdala in animal models of alcohol dependence. We sought to investigate if gabapentin would decrease alcohol-related craving, sleep and mood disturbance and drinking in 150 recently-abstinent outpatients with alcohol dependence.

Methods: 150 men and women >18 years of age with current alcohol dependence were randomized to 12 weeks of double-blind treatment with 0, 900 or 1800 mg/d of gabapentin, after achieving 3 days of abstinence. All subjects participated in weekly counseling and research assessments that included standardized measures of drinking, mood, sleep and craving over the 12 week study.

Results: Gabapentin was associated with significant linear dose-related improvements in craving, sleep and mood disturbance, and increased rates of abstinence and no heavy drinking.

Discussion: Gabapentin was effective in treating alcohol-related symptoms of insomnia, dysphoria and craving, and in increasing rates of abstinence and no heavy drinking. Improvements in mood and sleep found with gabapentin are benefits not associated with existing treatments for alcohol dependence. Results lend support to pharmacological treatment approaches for alcohol dependence that restore homeostasis in brain stress systems destabilized in protracted abstinence.

Reference: Mason BJ, Quello S, Goodell V, Shadan F, Kyle M, Begovic A. Gabapentin treatment for alcohol dependence: a randomized clinical trial. JAMA Internal Medicine; 2014; 174:70-77

Funding was provided by NIAAA grant R37AA014028. Gabapentin and matched placebo were provided by Pfizer Pharmaceuticals, Inc.