The effect of N-acetylcysteine on alcohol use during a cannabis cessation trial.


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BACKGROUND: Individuals with alcohol use disorder (AUD) do not always respond to currently available treatments, and evaluation of new candidate pharmacotherapies is indicated. N-acetylcysteine (NAC), an over-the-counter supplement, has shown promise in treating a variety of substance use disorders, but little research has evaluated its merits as a treatment for AUD. This secondary analysis from the National Drug Abuse Treatment Clinical Trials Network examined the effects of NAC versus placebo on alcohol use among participants with cannabis use disorder (CUD) enrolled in a 12-week, multi-site cannabis cessation trial.

METHODS: Participants (N = 302, ages 18-50) were randomized to double-blind NAC (1200 mg, twice daily) or placebo. Neither alcohol use nor desire for alcohol cessation were requirements for participation. Participants that returned for at least one treatment visit and had recorded alcohol use data (i.e., total drinks per week, drinking days per week, and binge drinking days per week) were included in the analysis (n = 277).

RESULTS: Compared to the placebo group, participants in the NAC group had increased odds of between-visit alcohol abstinence [OR = 1.37; 95% CI = 1.06-1.78; p = 0.019], fewer drinks per week [RR = 0.67; 95% CI = 0.48-0.99; p = 0.045], and fewer drinking days per week [RR = 0.69, 95% CI = 0.51-0.92; p = 0.014]. Changes in concurrent cannabis use amounts were not correlated to any of the alcohol use variables.

DISCUSSION: These findings indicate that NAC may be effective at reducing consumption of alcohol by ∼30% among treatment-seeking adults with CUD, suggesting a need for further trials focused on the effects of NAC on alcohol consumption among individuals seeking treatment for AUD.

PMID: 29413434