Anxiety and Depressed Mood Decline Following Smoking Abstinence in Adult Smokers with Attention Deficit Hyperactivity Disorder.

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Abstract

INTRODUCTION:
A preponderance of relevant research has indicated reduction in anxiety and depressive symptoms following smoking abstinence. This secondary analysis investigated whether the phenomenon extends to smokers with attention deficit hyperactivity disorder (ADHD).

METHODS:
The study setting was an 11-Week double-blind placebo-controlled randomized trial of osmotic release oral system methylphenidate (OROS-MPH) as a cessation aid when added to nicotine patch and counseling. Participants were 255 adult smokers with ADHD. The study outcomes are: anxiety (Beck Anxiety Inventory (BAI)) and depressed mood (Beck Depression Inventory II (BDI)) measured one Week and six Weeks after a target quit day (TQD). The main predictor is point-prevalence abstinence measured at Weeks 1 and 6 after TQD. Covariates are treatment (OROS-MPH vs placebo), past major depression, past anxiety disorder, number of cigarettes smoked daily, demographics (age, gender, education, marital status) and baseline scores on the BAI, BDI, and the DSM-IV ADHD Rating Scale.

RESULTS:
Abstinence was significantly associated with lower anxiety ratings throughout the post-quit period (p<0.001). Depressed mood was lower for abstainers than non-abstainers at Week 1 (p<0.05), but no longer at Week 6 (p=0.83). Treatment with OROS-MPH relative to placebo showed significant reductions at Week 6 after TQD for both anxiety (p<0.05) and depressed mood (p<0.001), but not at Week 1. Differential abstinence effects of gender were observed. Anxiety and depression ratings at baseline predicted increased ratings of corresponding measures during the post-quit period.

CONCLUSION:
Stopping smoking yielded reductions in anxiety and depressed mood in smokers with ADHD treated with nicotine patch and counseling. Treatment with OROS-MPH yielded mood reductions in delayed manner.

TRIAL REGISTRATION:
ClinicalTrials.gov NCT00253747.