The Effects of Attention-Deficit/Hyperactivity Disorder Symptom and Impulsivity on Abstinence Period of Male Patients with Alcohol Use Disorder

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Abstract

Objectives
Alcohol use disorder (AUD) is closely associated with attention-deficit/hyperactivity disorder (ADHD). However, the mechanism involved in this association remains unclear. Impulsivity is one of the core traits of ADHD, and an elevated level of impulsivity increases the risk of onset of AUD. Our study focused on impulsivity as the common trait factor of these disorders. We examined the effects of ADHD symptoms and impulsivity on the abstinence period of patients with AUD.

Methods
Male participants with AUD completed the contents of the Adult ADHD Self-Report Scale and the Barratt Impulsiveness Scale. We investigated participant alcohol abstinence period to evaluate severity and frequency of relapse.

Results
Both ADHD symptom presence and abstinence period were significantly correlated with impulsivity. Motor impulsivity showed the highest correlations with ADHD and abstinence. The results of hierarchical regression analysis showed that impulsivity is a predictor of abstinence period, while ADHD had a moderating effect on the relationships between impulsivity and abstinence period. Moreover, we undertook hierarchical regression analysis of motor, cognitive, and non-planning impulsivity; only motor impulsivity and ADHD symptom showed a statistically significant interaction with abstinence period.

Conclusion
The results indicate a possible causal relationship between the treatment of ADHD symptoms and the extension of AUD abstinence period. In other words, treatment of ADHD symptoms may prevent AUD relapse. Impulsivity, especially motor impulsivity has an important role in the base mechanisms of these two disorders.