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Prevalence and Comorbidity of Alcohol Dependence, Depression, and Anxiety Disorders in their Association with the Serotonin Transporter Gene

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Abstract

Introduction: Depression and anxiety disorders have been found to be highly comorbid in epidemiologic studies. Furthermore, the presence of the short allele of the serotonin transporter gene (5HTT) has been found to be associated with an increased prevalence of major depressive disorder (MDD), bipolar disorder, anxiety disorders, as well as personality disorders. Aims: To examine the association of the 5HTT and the risk of prevalence and comorbidity for, Major Depressive Disorder, Bipolar Disorder, as well as several anxiety disorders in a sample of the Baltimore Epidemiologic Catchment Area Survey Follow-up Study.

Methods: We estimated lifetime prevalence and the risk of comorbidity for Major Depressive Disorder, Bipolar Disorder, Panic Disorder, Agoraphobia, Social Phobia, Obsessive Compulsive Disorder, Generalized Anxiety Disorder, Simple Phobia, Dysthymic Disorder. All subjects were evaluated by a psychiatrist using the Schedules for Clinical Assessment in Neuropsychiatry. In addition, we assessed the impact of the carrier status into the prevalence and comorbidity estimates of the aforementioned disorders.

Results: A significant association was found between an increased risk for the lifetime prevalence of Panic Disorder and the 5-HTT "s" polymorphism (OR (95% CI): 3.10 (1.33; 7.27). A higher risk for lifetime prevalence of Panic Disorder and the 5-HTT "s" polymorphism was found in women carriers as compared to men(OR (95% CI): 3.54 (1.41; 8.91)). Panic Disorder had significant comorbidities with Alcohol Dependence, Alcohol Abuse, MDD, Bipolar Disorder, Agoraphobia, Social Phobia, OCD, Simple Phobia and Adjustment Disorder. These associations were higher in women as compared to men carriers. Comorbidities for Simple Phobia were highly significant in males for most anxiety disorders and MDD.

Conclusions: There was a high prevalence of comorbidity amongst most of the anxiety disorders in this population. The effect of the 5HTT carrier status was only associated with an increment in the risk of having a Panic Disorder.