

**Title: Prevalence and familial aggregation of panic disorder in patients with Parkinson's disease**

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**Abstract:** A number of causative genetic mutations have been identified in Parkinson's disease (PD) in the last 10 years, but the majority of cases remain sporadic and an interaction between genes and the environment is suspected. Familial aggregation studies show an increased risk of PD among first-degree relatives of patients with PD. While a recent complete genetic screen of PD supports that genetic factors are involved in its etiology, approximately 85% of individuals with PD do not have a family history of PD in a close relative. Therefore, it has been suggested that markers for susceptibility to PD are needed. Epidemiologic studies show that anxiety disturbances early in life are associated with a significantly higher relative risk of developing PD. Panic disorder is reported to be among the most prevalent anxiety disorders in PD with clinically significant panic occurring in 12%-30% of subjects. To investigate a potential association between panic disorder and PD we plan to conduct a family study to determine whether panic disorder occurs more frequently in the first degree relatives of subjects with PD compared to controls. We hypothesize that panic disorder may act as a marker of susceptibility or represent a phenotypic variant associated with certain genetic mutations in PD.