

PREVALENCE AND ASSOCIATED FACTORS OF ANXIETY AFTER DEEP BRAIN STIMULATION AT SUBTHALAMIC NUCLEUS (STN-DBS) IN PATIENTS WITH PARKINSON'S DISEASE

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Introduction: Deep brain stimulation (DBS) for Parkinson's disease (PD) has emerged as a treatment with very good motor outcomes. However, a higher prevalence of anxiety following DBS has been reported.

Objectives: To study the prevalence and associated factors of anxiety following STN-DBS

Methods: Data were retrospectively collected from medical records of PD patients who underwent STN-DBS at King's College Hospital, London from 2001 to 2010. Neuropsychiatric assessments were done pre-STN-DBS at baseline, and also approximately 6 months after the surgery.

Results: Fifty eight PD patients underwent STN-DBS. After patients with missing data (n=2), patients who were not referred for post-DBS neuropsychiatric evaluation (n=5) were excluded, 51 patients were studied. Their mean age was 61.2±7.1 years old and the mean PD duration was 12±5.2 years. Post-STN-DBS anxiety was found in 8 patients (15.7%). All of them underwent bilateral STN-DBS and had uneventful recovery. Significant associated factors were female gender (n=6; 75.0%; p=0.056) and new-onset post-DBS apathy (n=7, 87.5%, p=0.0001). However, memory impairment (n=4; 50%; p=0.076) and depression post-DBS (n=4, 50%, p=0.055) did not show statistically significant associations.

Conclusions: The prevalence of post-STN-DBS anxiety in our study (15.7%) was lower than that from the previous reports in PD patients who received medication (25-43%) and STN-DBS (40%). The associated factors were similar to those reported in medication-treated PD patients. Given relatively low prevalence of anxiety following the operation, STN-DBS is likely to be a safe treatment for PD patients with high risk for anxiety disorders.