

The Correlates for Receiving Deep Brain Stimulation (DBS) in Patients Parkinson's Disease

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Abstract

Background/objective:

Studies had shown global improvement of quality of life (QoL) after bilateral high frequency chronic deep brain stimulation of the subthalamic nucleus (STN DBS) in Parkinson's disease (PD). However, limited literature explores the association between pre-DBS psychiatric symptoms and quality of life of PD patients and the decision making onreceiving DBS. This study aims to assess and compare the mood symptoms, quality of sleep and QoL in patients with PD suggested for DBS and received DBS, and in patientswith PD suggested for DBS but didn't receive DBS.

Methods:

We enrolled 40 patients with Parkinson's disease from Neurosurgery Department of Local Medical Hospital and suggested for pre-Deep Brain Stimulation (DBS) evaluation. They were interviewed by board-certified psychiatrists for diagnosis of psychiatric disorders, if any, and they were assessed with Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), WHOQoL-BREF, Parkinson's Disease Questionnaire (PDQ)-39, Parking's disease Rating Scale (UPDRS)and Sleep Quality Questionnaires (SQQ) prior to receiving DBS.

Results:

Fourteen patients (35%) received DBS at the end. We would expect that patients receiving DBS have higher level of mood symptoms and lower scores on quality of life during the pre-DBS surgery evaluation. Our second outcome measures are to find correlates for patients receiving DBS. The data is currently being analyzed.

Conclusion:

We expect mood symptoms, possibly physical symptoms, to be highly associated with quality of life in patients with Parkinson's disease indicated for DBS, and may

possibly affect the decision on receiving DBS. Mood symptom, sleep quality and quality of life should be carefully assessed in patients planning to receive DBS.