

Data that Speaks for Itself

Subjective Assessments of voice in Parkinson's disease subjects with and without STN-DBS therapy.

In the absence of an effective disease-modifying therapy, it is well recognized that Parkinson's disease follows a largely predictable but inexorable progression with both troublesome motor and non-motor symptoms. Initially, most patients will typically demonstrate largely motor deficits that respond well to dopaminergic therapy, a benefit that becomes increasingly inconsistent over time, precipitating the need to consider device assisted therapeutic approaches, such as infusion therapies (e.g. levodopa/carbidopa intestinal gel and subcutaneous/sublingual apomorphine) or deep brain stimulation (DBS) surgery. While the improvement that these treatments deliver via the reduction of disabling periods of wearing Off is beyond question, the continued progression of other disease features remains disconcerting for patients, as well as their treating clinicians.

A wise colleague once told me that he much preferred for his patients to suffer from the natural history of their disease rather than from the treatment that he had offered them. Thus, while we may not like it, most clinicians can accept the emergence of common neuropsychiatric symptoms, including dementia and psychosis, which accompany advanced disease, regardless of any device-assisted therapy that has successfully improved motor fluctuations. However, in patients undergoing DBS, there has long been the dogma that they will be more likely to experience disabling 'axial' features, including balance, swallowing, and speech deficits over time. This has always represented a 'Sliding Doors' type of dilemma, where it is not clear whether a patient would have done better over the long term (potentially 20 years in some cases) if they had been managed conservatively as opposed to having stepped through the door to visit the DBS team.

In the current issue, through their paper, *Subjective assessments of voice in Parkinson's disease subjects with and without STN-DBS therapy*, Onder, *et al.*^[1] report their real-world experience of patients visiting the clinic by utilizing the voice handicap index (VHI), a previously validated method, to measure the subjective impact of voice disorders on quality of life. There have been several previous studies that have

inconsistently identified a range of objective speech deficits in patients treated with DBS over the longer period (5–11 years). However, using the VHI tool to explore how any changes in speech directly impact quality of life is important and offers novel insights about the outcomes of DBS.

Significantly, while the VHI was correlated with disease duration, the authors report that there were no significant differences on this assessment between those patients with (n = 35) and without (n = 31) DBS, despite the group that had undergone surgery having a longer disease duration. Furthermore, the authors could not find any correlations between the VHI and the duration of DBS treatment.

This study obviously has a number of limitations, including the small number of subjects recruited from a single center, as well as their short period of follow-up. Similarly, the lack of objective measurements to assess voice performance, swallowing, and balance are deficiencies that need to be considered in future prospective and, ideally, multi-center studies. However, at the current time, the findings presented here should give us more confidence when informing our patients about the risks associated with DBS and allow for more informed decisions to be made.

REFERENCE

1. Onder H, Bahtiyarca ZT, Comoglu S. Subjective Assessments of Voice in Parkinson's Disease Subjects with and Without STN-DBS Therapy. *Ann Indian Acad Neurol* 2023;26:491-5.

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