2183. Perceptions of Brain Surgery Invasiveness in a Cohort of Patients with Early-to-Moderate Parkinson’s Disease – A Pilot Study

All authors have no disclosures
Deep Brain Stimulation (DBS) is an efficacious yet underutilized therapy for Parkinson’s Disease (PD).

Approximately 10-15% of eligible patients are referred to specialized DBS treatment centers, and about half of patients with advanced PD have reluctance prior to undergoing treatment.

Uniquely, the decision to undergo DBS is strongly driven by patients. However, there is a paucity of literature examining their perspective on this procedure.
We administered a 30-question survey to PD patients following up at our movement disorders clinic.

Questions assessed their openness to six types of surgery: open, minimally invasive, incisionless, reversible, and irreversible via Likert-item (1-5) scales.

Retrospective chart review was conducted in order to obtain the patient demographic data, UPDRS Part III score, and their LEDD score.

We report “Agree” as a score of 4 or 5 on the Likert scale.

Data was analyzed using Chi-square analysis, Fisher's Exact test, Kruskal-Wallis test, or one-way ANOVA were conducted where applicable based on variable type.
A total of 68 patients completed the survey.

Average years since diagnosis was 6.3±3.3.

Within our cohort, 78% of patients would agree to reversible surgery if it was the best treatment option for them, whereas 40% would agree to irreversible surgery.

When asked about surgical invasiveness, 33% of patients agreed to open surgery, 79% of patients agreed to minimally-invasive surgery, and 85% of patients agreed to incisionless surgery.

Bivariate analysis revealed that patients with higher mean LEDD scores were less agreeable to open (p=.008), reversible (p=0.003), and incisionless (p=0.039) surgery. Patients with higher years since diagnosis were less likely to agree to incisionless surgery (p=0.011).
Our study demonstrates that patients with early-to-moderate PD have decreasing rates of agreeability to increasingly invasive PD surgery.

About twice as many patients would agree to reversible PD surgery versus irreversible surgery, even if surgery was the best treatment option available.

Over twice as many patients would agree to minimally invasive PD surgery versus open PD surgery, even if surgery was the best treatment option available.

Additionally, our findings suggest that increasing LEDD score inversely predicts agreeability to multiple types of PD surgery. Additional surveys will administered to further investigate these trends.
DBS is a underutilized procedure, and the decision to undergo surgery is strongly patient driven.

Disease progression and patient conceptions of surgery may predict patient willingness to discuss efficacious surgical therapies for PD.