

The effect of subthalamic nucleus deep brain stimulation on dyspepsia symptoms

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Parkinson's disease (PD) is a progressive neurodegenerative disease and characterized by motor and nonmotor symptoms. Gastrointestinal symptoms like constipation and dyspepsia are common symptoms in PD. These symptoms can cause to significant morbidity. The patients often need to use several medications like antacids, proton pump inhibitors or H2 receptor blockers for long term. The beneficial effect of Deep Brain Stimulation (DBS) has proved by several studies. Subthalamic Nucleus (STN) and Globus Pallidus Internus GPI are preferred targets for PD. There are several studies about the effect of STN-DBS on motor symptoms, but the studies about the nonmotor symptoms are limited. Our goal is to evaluate the effect of STN-DBS on functional dyspepsia. A total 25 patients (sixteen men and nine women), who underwent bilateral STN-DBS implantation between April 2016 and May 2017 were enrolled in this study. The median age was 57 years (range 38–80). The dyspepsia symptoms were evaluated before and three months after the surgery. Rome III criteria were used to diagnose the dyspepsia, postprandial bloating and epigastric complaints. The medications for these complaints are evaluated to. One patient was excluded because of the

distal esophagus thickening diagnosis. Prior to surgery in 21 patients, at least one of these findings was observed. 17 (68%) patients were using medication regularly. In this patient group, postoperative evaluation was made on third month. 3 (17.6%) patients reported that they didn't feel any improvement on their complaints. In 5 (29.4%) patients, improvement and decrease in medication was detected. In 9 (52.9%) patient's improvement was detected and they reported that they don't need to take medication for dyspepsia anymore. Our results suggest that the bilateral STN-DBS surgery improves the dyspepsia complaints as well as life quality in Parkinson's disease patients.

Speaker Biography

Yilmaz Atilla is currently an Assistant Professor at the Neurosurgery Department at Mustafa Kemal University. From 2015, he has served as a Clinical Fellowship in Koc University College of Medicine and Spine Centre, Istanbul, Turkey and as an Observer in Florida University Movement Disorder Centre, Gainesville, USA in 2016 and 2017. He has published more than 10 peer-reviewed journals and 100 conference papers. He is a Reviewer and Editorial Board Member for several journals in the field of Neurosurgery. He has also been invited as a speaker of many international conferences. His major research interests are: functional neurosurgery, neuromodulation and spine surgery. He also has a lot of experience about war surgery.

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