Movement Disorders
CLINICAL PRACTICE

Managing Device-Aided Treatments in Parkinson's Disease in Times of COVID-19

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We read with interest the viewpoint review from Fasano and colleagues[1] on the management of advanced therapies in patients with Parkinson's disease (PD) during the COVID-19 pandemic. We agree with the authors that this crisis may be turned into an opportunity. Our national health care systems should actively support clinicians in the remote management of chronic neurological patients, including those with advanced PD.

Similar to other countries, outpatient clinics have been suspended in Italy. Although recommendations are available to implement telemedicine for movement disorder clinics, Italy still lacks of a formal national system for the remote management of chronic patients, including dedicated emergency lines.[2,3] Thus, clinicians use alternative methods to ensure the most effective assistance to patients with PD on advanced therapies. Herein we share our experience on the remote management of 3 cases of patients with PD on device-aided therapies by whatsapp video and phone calls and using a neurologist's private phone number.

The first patient is a 56-year-old man with an 8-year history of PD complicated by pathological gambling. Bilateral subthalamic nucleus deep brain stimulation was performed in February 2020 (Vercise; Boston Scientific, Marlborough, MA), and first programming was scheduled for March as per routine practice.[4] As all routine visits were suspended because of the COVID-19 emergency, first programming was scheduled on an urgent basis, and several initiatives were performed to maximize safety for both the patient and neurologist. First, both wore surgical masks and, instead of rigidity, bradykinesia was chosen to evaluate stimulation efficacy to maintain the recommended social distancing. The Bluetooth connection from the programmer to the patient's implanted pulse generator was helpful for this sake. A program for the upcoming weeks was proposed, and the patient was trained on the use of the remote control[5] (Fig. 1).

The second patient was a 73-year-old man with a 10-year-history of PD and on intrajejunal infusion of levodopa/carbidopa intestinal gel (LCIG) since last year. On March 2020, his infusion pump stopped working properly likely the result of an obstruction of the percutaneous endoscopic transgastric jejunostomy (PEG-J) tube. Although the PEG-J tube was washed repeatedly, the issue persisted. Thus, the patient was switched from LCIG to regular levodopa, maintaining a stable levodopa-equivalent dose (from LCIG 3.4 mL/h per 14 hr/day to levodopa/carbidopa 250 + 25 mg 4 tablets per day), and continued to wash the PEG-J tube daily. After about 1 week he was able to switch back to LICG with no further complaints.

The third patient is 70-year-old woman with a 7-year-history of PD with dementia and on LCIG for 2 years (2.6 mL/hr for 12–14 hr/day). As the result of the recent worsening of a pre-existing abdominal tumor, she presented an aggravation of her general condition and severe dysphagia. Thus, it was suggested to the patient's caregiver to use the PEG-J (15 Fr) for enteral nutrition through the gastric port. Her neurological condition has been stable since then.

We provided a few examples supporting the role of video and phone contacts for the management of emergencies in advanced therapies in PD. Such observations should prompt national and local health care systems to support clinicians in the remote management of chronic patients. The usefulness of the patients' remote control for deep brain stimulation management was also emphasized.

Author Roles

(1) Research Project: A. Conception, B. Organization, C. Execution; (2) Manuscript Preparation: A. Writing of the First Draft, B. Review and Critique.

F.A.: 2A
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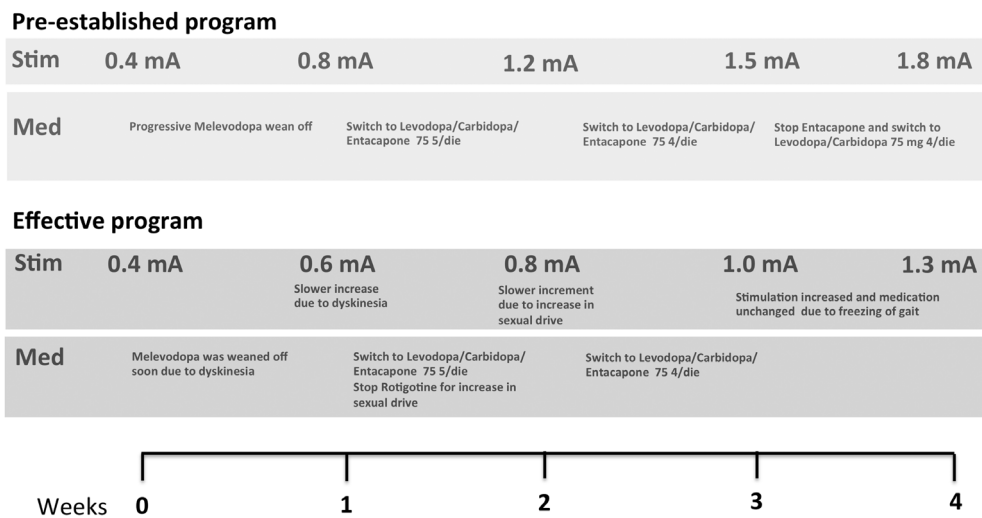
FIG 1. Home program for stimulation tuning with remote control and stimulation management to avoid further hospital visits. Upper section. Pre-established 4-week program for stimulation tuning and dopaminergic medication management. Medications were slowly titrated since the patient was at risk for side effects from dopaminergic deprivation given the history of pathological gambling. Medications at the beginning included: Levodopa/Carbidopa/Entacapone 100 mg 2/die, Levodopa/Carbidopa/Entacapone 75 mg 3/die, Levodopa/Carbidopa/Entacapone 50 mg 1/die, Rotigotine patch 4 mg/die, Melevodopa/Carbidopa 100+25 3/die, Amantadine 100 mg 3/die. Lower section. Effective program was changed due to emergence of dyskinesia, increase of sexual drive and gait freezing. Over four weeks, the patient was able to finish programming [R STN C+ (2/3/4)- 1.3mA/60μs/130Hz; L STN C+ (5/6/7)- 1.3mA/60μs/130Hz) with a significant reduction of levodopa equivalent daily dose (LEDD from 1152 to 600 mg). Amantadine was unmodified. Motor symptoms were monitored with patients' on-off diaries. L STN, left subthalamic nucleus; LEDD, levodopa equivalent daily dose; Med, medications; R STN, right subthalamic nucleus; Stim: stimulation.

Disclosures

Ethical Compliance Statement: The study has been approved by the appropriate ethics committee and have therefore been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki and its later amendments. The patient signed written informed consent. We confirm that we have read the Journal's position on issues involved in ethical publication and affirm that this work is consistent with those guidelines.

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