

LETTERS TO THE EDITOR

Botulinum toxin therapy during the COVID-19 outbreak: Experience of an Italian multidisciplinary team

Dear Editor,

We read with great interest the letter by Leocani and coworkers titled "Disability Through COVID-19 Pandemic: Neurorehabilitation Cannot Wait." We agree with their report of how the COVID-19 epidemic countermeasures affected neurorehabilitation facilities in Italy [1], and we endorse the authors' position concerning the importance of providing timely disability management even in the pandemic phase. At the same time, given the necessity to adapt protections from COVID-19 exposure for patients and staff, multidisciplinary teams have to reorganize their work routine with the support of digital technology.

We would like to share our experience as an outpatient clinic for the treatment of spasticity with botulinum toxin (BT) during the COVID-19 outbreak. We belong to the Neurorehabilitation Medicine Unit of the University Hospital of Parma, in the north of Italy. Our clinic is managed by a multidisciplinary team (physiatrists, physiotherapists, occupational therapists) providing evaluation, physical therapy, and bracing in conjunction with intermittent pharmacological treatment. In accordance with government indications of good clinical practice, on 2 March 2020 we ceased outpatient activities. In April 2020, following the publication of the Clinical Recommendations of the Italian Society of Physical Medicine and Rehabilitation and the Italian Society of Neurorehabilitation [2], we started monitoring our patients via telemedicine and telephone calls. Telemedicine showed important limitations due to the inability to perform a full physical examination and to adequately assess spasticity, muscle tone, and contracture. Only four "televisits" were performed because of the difficulty in using digital devices by most of our patients and the limitations linked to internet connections. Phone calls, in contrast, have proven to be a more successful system, because 20 patients were contacted and triaged with success.

Since May 2020, reduced outpatient activity has resumed in compliance with the regulations of our hospital, and 25 in-person evaluations were performed until 30 July 2020. As result of the shutdown, interinjection intervals were increased for most of our patients. The resumption of BT clinic activity revealed an aggravation of spasticity for many of them, with a different impact according to the functional independence level. Patients who had low levels of functional independence and participation experienced decreased articular range of motion and upsurge of pain condition. The

consequences were difficulties in nursing and posture, thus reducing the perceived quality of life. In contrast, patients who had higher level of activity and participation were less affected by the delay in BT therapy, suggesting that daily self-rehabilitation programs play a role in good preservation of personal resources.

Resuming in-person clinic activity led us to the following considerations. First, triaging patients into different priority groups is essential to determine the need for in-person assessment. Telemedicine is not a viable alternative to in-person evaluation, but it can support the identification of patients who could be more harmed by delayed BT treatment. Second, therapist educational intervention is paramount to improve patient awareness of impairment and health needs. Good compliance to self-rehabilitation programs has proved to be an effective protection against delays in the continuity of treatment.

KEYWORDS


botulinum toxin therapy, COVID-19, neurorehabilitation, physiatry

CONFLICT OF INTEREST

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AUTHOR CONTRIBUTIONS

Anais Rampello: Conceptualization (equal); Funding acquisition (equal); Investigation (equal); Project administration (equal); Supervision (equal); Writing-original draft (supporting). **Patrizia Mammi:** Conceptualization (equal); Methodology (equal); Supervision (equal); Writing-original draft (equal); Writing-review & editing (equal). **Annamaria Salghetti:** Validation (supporting); Visualization (supporting). **Rodolfo Brianti:** Supervision (supporting); Validation (supporting).

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