Editorial

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Botulinum Toxin and Parkinson's Disease: A Powerful Therapeutic Agent when Used with Awareness

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Editorial

Parkinson's Disease (PD) is a lifelong chronic progressive neurodegenerative condition. There are a wide range of drug treatments for PD. The choice of drugs depends on a combination of factors including the relative effectiveness and adverse effect profile of the agents, patient comorbidities, patients' employment status, clinician experience and patient preference. As the disease progresses, combination therapy is prescribed but there are gaps in clinical knowledge about when this should be initiated and what combinations of therapies are most effective. Levodopa, the precursor of dopamine, has been used as the mainstay of treatment for Parkinson's disease since the early 1970s. It is given with a Dopa Decarboxylase Inhibitor (DDI) to reduce the peripheral availability of levodopa and thereby reduce the adverse effects associated with treatment [1-3].

Double blind, placebo controlled studies, as well as open label clinical trials, provide evidence that, when appropriate targets and doses are selected, Botulinum Toxin (BTX) temporarily ameliorates (PD) symptons. When injected not more often than every three months, the risk of blocking antibodies is slight. Long term experience with this agent suggests that it is an effective and safe treatment not only for approved indications but also for an increasing number of off-label indications [4].

BTX are an effective treatment modality for many neurological conditions, and could have a safe and useful role in the treatment of (PD) symptons, such as: pain (dystonia or musculoskeletal), gait (freezing), dystonia (lingua protusion, cervical, foot, pisa syndrome), sialorrhea (drooling), tremor (hand and jaw), disfagia, lower urinary tract symptons, postural deformities, camptocormia, blepharospasm/apraxia of eyelid opening, bruxism and constipation. Other conditions associated with Parkinson's disease, which will not be reviewed here, but may benefit from botulinum toxin treatment include anterocollis (also known as dropped head syndrome), hyperhidrosis, seborrhea [5-13].

Parkinson's disease is usually managed with a combination of pharmaceutical agents, some of which are known to be associated with adverse effects. The range of drugs involved and the differences in severity and frequency of adverse reactions make it difficult to present universal advice for limiting harm across all potential combinations [14]. Therapeutic education is an answer for PD patients who need to know and understand their disease and treatment [11-12]. Targeted treatment with BTX is essential in this context, as it avoided drug interactions and side effects of new drugs associated with levodopa, it was safe and well tolerated. Therapeutic education programs are always evolving.

In medicine, rarely has a therapeutic agent been found efficacious in the management of so many symptoms and in such a relatively short time as BTX. This update highlights seminal contributions that have introduced the application of BTX in the field of movement disorders (PD), provides evidence-based contributions that have established the drug as an effective treatment for abnormal movements and other symptons in PD patients. A 20-year experience with BTX treatment in Parkinsonism and PD shows that injections are a safe and useful tool for the treatment of many symptoms that are often challenging to treat.

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