

# Managing anxiety in Parkinson's disease: the role of nonpharmacological strategies

Abordagem da ansiedade na doença de Parkinson: papel de estratégias não-farmacológicas

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Although Parkinson's disease (PD) is defined by the presence of motor symptoms and is traditionally classified as a 'movement disorder', the understanding of PD has changed to incorporate nonmotor symptoms that are intrinsically related to the neurodegenerative process. Of note, the occurrence of nonmotor symptoms in PD had already been acknowledged by James Parkinson in his 1817 *Essay on the Shaking Palsy*, when he described gastrointestinal, neuropsychiatric, sleep and cognitive aspects in PD. However, nonmotor symptoms have only recently become an issue of great interest in the clinical management of and research on PD<sup>1</sup>. Patients suffering from PD present with a range of nonmotor symptoms that can be even more disabling than their motor problems. Cognitive and psychiatric changes are common and relevant nonmotor symptoms as they can be extremely debilitating, influencing quality of life, hospitalization rate and healthcare costs<sup>1,2</sup>.

Anxiety is a very common nonmotor symptom in PD. Approximately one third of patients with PD is estimated to experience clinically-significant anxiety in comparison with 15% of the general population. Anxiety in PD is associated with fear of falling, cognitive decline, reduced quality of life and related caregiver burden. Furthermore, there is a vicious cycle wherein anxiety aggravates motor symptoms, which in turn lead to more anxiety. Despite their high prevalence, anxiety disorders are underdiagnosed in PD. The diagnostic challenges include differentiating overlapping anxiety features with parkinsonian (e.g. autonomic and motor) and depressive symptoms, and identifying the subtype of anxiety disorder<sup>3</sup>. The pharmacological approach to anxiety disorders in PD is also complex. Selective serotonin reuptake inhibitors (e.g. sertraline) are the most-prescribed drugs for anxiety in PD, followed by benzodiazepines and other antidepressants<sup>4</sup>. The use of benzodiazepines in geriatric populations is a matter of concern, especially in PD, given the adverse side effects including cognitive impairment and increased risk of falls<sup>5</sup>. Regarding nonpharmacological options, cognitive behavioral therapy has been shown to reduce anxiety with persisting benefits in patients with PD, in addition to decreasing caregiver burden<sup>6</sup>.

To date, evidence-based treatment strategies for anxiety in PD are very limited<sup>3</sup> and studies focused on this subject are sorely needed. In this issue of *Arquivos de Neuro-psiquiatria*, Ferreira et al.<sup>7</sup> report on the benefits of physical exercise – i.e., resistance training, in reducing anxiety symptoms and improving the perception of quality of life in PD. This is the first study to evaluate the effects of a resistance training program on anxiety in individuals with PD. At the end of the 24-week randomized clinical trial, patients with PD who were subjected to a program of resistance training had a significant improvement in the scales assessing anxiety symptoms and quality of life (Beck Anxiety Inventory and Parkinson's Disease Questionnaire-39, respectively), in addition to decreasing the scores in the Unified Parkinson's Disease Rating Scale. These results must be seen as promising, but preliminary. Besides not allowing more robust statistical analyses, the size and clinical characteristics of the studied sample could not inform about potentially different effects of resistance training depending on disease stage and/or disease phenotype. Accordingly, more studies with larger samples and with longitudinal follow-up might help to advance the understanding of the effects of exercise on motor and nonmotor symptoms, including anxiety, in PD. In addition, the evaluation of different exercise protocols would be of relevance.

The lack of disease-modifying treatments that can influence PD progression, in combination with an increasing elderly population, pose a significant economic burden on patients and caregivers<sup>8</sup>. The research on how to rationally treat PD and the associated syndromes is of paramount importance in this regard. Nonpharmacological strategies should play a more prominent role in treating PD-associated

syndromes given the complex nature of pharmacological treatment for motor symptoms. Moreover, pharmacotherapy for anxiety and other nonmotor symptoms in PD may result in unfavorable adverse effects (especially in the case of benzodiazepines). The study by Ferreira et al.<sup>7</sup> throws some light on this scenario, highlighting the role of exercise in the management of PD-related nonmotor symptoms.

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