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Over 5 years for correct diagnosis. The importance of identifying NMS and the role of acute LD challenge test

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Introduction: Parkinson's disease (PD) has a heterogeneous clinical presentation, including a broad spectrum of non-motor symptoms (NMS), such as depression [1]. The diagnosis of PD is based on the United Kingdom Parkinson's Disease Society Brain Bank (UKPDSBB) criteria as the presence of motor signs including their responsiveness to levodopa (LD) [2][3]. We report a case of delayed diagnosis of PD during the COVID-19 pandemic in a patient who complained of depression before the occurrence of PD motor symptoms.

Objective: The aim of this presentation is to highlight the importance of identifying NMS as key to early diagnosis of PD [4] and to reinforce the role of acute LD challenge test in diagnostic work-up of PD.

Methods: We present the case of a 65-year-old female, who complained of depressive symptoms started five years earlier with unsatisfactory response to antidepressant therapy. She came to our emergency department presenting bilateral rigidity and severe bradykinesia, progressively worsening over the last months. Before being evaluated by our team, her clinical presentation was interpreted as a psychotic-like syndrome with catatonic state. On examination she showed cogwheel rigidity bilaterally, severe bradykinesia and resting tremor (right >left). Brain MRI was unremarkable; considering the UKPDSBB criteria, we performed the acute LDCT (200/50 mg levodopa/carbidopa) and achieved an impressive improvement in motor symptoms as assessed by the UPDRS scale, passing from a score of 76 to 38 (50%). [123I]-FP-CIT imaging, carried out in the following days,
confirmed bilateral nigrostriatal dysfunction (left>right).

Results: Based on the clinical and imaging findings, we made a diagnosis of PD; the patient started levodopa–benserazide, selegiline and rotigotine treatment with a significant improvement of her parkinsonian symptoms, including depression, at a three-month follow-up.

Conclusion: Despite modern algorithm and hypothetical telemedicine, a correct clinical evaluation and LDCT conserve their main utility, especially when NMS, namely a pharmaco-resistant depression, is the initial hallmark of PD.

References:

[1] Riedel O, Klotsche J, Spottke A, et al. Frequency of dementia, depression, and other neuropsychiatric symptoms in 1,449 outpatients with Parkinson's disease. J Neurol 2010; 257:1073–1082.
[2] Goetz CG, Tilley BC, Shaftman SR, Stebbins GT, Fahn S, Martinez-Martin P, et al. Movement Disorder Society-sponsored revision of the Unified Parkinson's Disease Rating Scale (MDS-UPDRS): scale presentation and clinimetric testing results. Mov Disord (2008) 23:2129–70. doi:10.1002/mds.22340
[3] Clarke CE, Davies P. Systematic review of acute levodopa and apomorphine challenge tests in the diagnosis of idiopathic Parkinson's disease. J Neurol Neurosurg Psychiatry 2000; 69:590–594.
[4] Sung VW, Nicholas AP. Nonmotor symptoms in Parkinson's disease: expanding the view of Parkinson's disease beyond a pure motor, pure dopaminergic problem. Neurol Clin. 2013 Aug;31(3 Suppl): S1-16. doi: 10.1016/j.ncl.2013.04.013. Epub 2013 Jun 14. PMID: 23931951.
[5] Chuurman AG, van den Akker M, Ensinck KT, et al. Increased risk of Parkinson's disease after depression: a retrospective cohort study. Neurology 2002;58:1501–1504.