

Use of safinamide and non-motor fluctuations in Parkinson's disease

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Introduction: Safinamide is a monoamine oxidase B inhibitor used as an adjunct treatment of motor symptoms in Parkinson disease (PD). Some studies suggested its role in ameliorating non-motor symptoms such as pain, mood and sleep. However, its use in patients with non-motor symptom fluctuations has not been well investigated so far.

Objective: To observe the use of safinamide in PD patients with motor and non-motor symptoms (static and fluctuating).

Methods: In this cross-sectional study, non-motor symptom (static and fluctuating) scores from 30 PD candidates for device-aided therapies due to the suboptimal control of motor fluctuations were analyzed by means of the newly validated Non-Motor Fluctuation Assessment (NoMoFA) Questionnaire. NoMoFA is an assessment tool that facilitates the identification and quantification of severity of both static and fluctuating non-motor symptoms in PD, validated in 2021 and promoted by the MDS. The following demographic and clinical variables were also considered: age, disease duration, Hoehn & Yahr PD stage (HY), and levodopa equivalent daily dose (LEDD). Mann-Whitney and logistic regression analysis were performed.

Results: 13/30 patients were treated with safinamide 100 mg (Saf+), no patients were treated with safinamide 50 mg. Age, disease duration, HY, and LEDD did not differ significantly between Saf+ and patients not treated with safinamide (Saf-). The static score of non-motor symptoms did not differ between Saf+ and Saf- (6.6 ± 4 Saf+ vs. 7.1 ± 5.8 Saf-; $p:0.742$), while the total non-motor fluctuation score was significantly higher in Saf+ (12.5 ± 5.5 Saf+ vs. 7.8 ± 5.7 Saf-; $p:0.017$). The logistic regression analysis confirmed the data, with safinamide use being associated with a higher non-motor fluctuation score (OR 1.228; $p:0.028$), after covariation for LEDD, age, disease stage and disease duration.

Conclusions: Our results support the perception of safinamide as a drug useful for non-motor symptoms in PD, especially when fluctuating, as most patients treated with Safinamide were those showing the higher score of non-motor symptom fluctuations. Longitudinal studies using NoMoFa are warranted to confirm the real efficacy of safinamide in reducing non-motor fluctuations.