

Determinants of quality of life and daily mobility in Parkinson's disease: the role of fear of falling.

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Background: The fear of falling (FOF) is defined as a lasting concern about falling and can impact severely quality of life (QoL) [1]. Parkinson's Disease (PD) patients frequently manifest postural instability, recurrent falls and FOF.

Objective: We aimed to investigate the relationship between the PD clinical features, the presence of FOF and its impact on QoL. We explored whether the reduction of patient mobility - measured through a 24-hour continuous remote monitoring essay - might depend on FOF.

Methods: Fifty non-dement, PD patients were enrolled by our movement disorders outpatient clinic. The PD status and severity were assessed with UPDRS part I to IV, modified Hoehn and Yahr scale, Non Motor Symptom Questionnaire (NMSQ), Montreal Cognitive Assessment (MoCA) and Schwab & England ADL scale (ADL). The FOF presence and its severity were scored through the Fall Efficacy Scale (FES); FOF was defined as a FES score >19. Further data on freezing of gait and postural stability were collected. All patients were equipped with a smartphone with an embedded application to monitor their quantity of motion (activity index, AI) for a 24-hour period.

Results: Thirty patients (60%) reported a previous history of falling. The median FES score was 17; 19 (38%) patients reported FOF. Various motor and non-motor parameters were associated with a higher FES score. Patients with FOF had also significantly lower QoL and ADL, independently by motor and non-motor disease features. Forty-seven out 50 subjects (94%) have been investigated through a 24-hour motion monitoring tool. The FES score and the AI had a mutual direct relationship ($p=0.010$). Patients with FOF had lower AI than patients without FOF ($p = 0.025$). Both are associated to the mobility related quality of life, while FOF had a more widespread and independent association with several non-mobility related QoL issues.

Conclusions: The presented data confirm that FOF is a prevalent and pervasive condition affecting mobility and various QoL aspects of patients with PD [2]. FOF identification and treatment strategies are of critical importance in the management of PD.

References:

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