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Longitudinal progression of cognitive impairment in PSP

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Introduction: Progressive supranuclear palsy (PSP) is a rare, rapidly progressive, neurodegenerative disease characterized by cognitive and behavioral [1]. The aim of the present study is to analyze longitudinal changes in cognition in PSP patients using a comprehensive cognitive battery.

Methods: Twenty-nine PSP patients diagnosed according to the Movement Disorder Society criteria, underwent a motor and cognitive assessment at the base-line (T_0) and after 14.73±9.18 months of follow up (T_1).
Based on z-scores, compound scores for five cognitive domains were computed: memory, visuo-spatial, attentional, apraxial and executive functioning. The global cognition was obtained by the mean of five domains with z-scores of Montreal Cognitive Assessment (MOCA). Motor impairment was assessed with the PSP rating scale (PSP-rs).
The Wilcoxon's test, corrected for multiple comparisons, was used to investigate the progression of cognitive symptoms in the all domains.

Results: The global cognition and the visuo- spatial domain presented a significant decline at T_1 ($p<0.05$). The visuo- spatial function tests presented the greatest sensitivity to clinical progression ($p=0.007$).
The PSP Rating Scale (PSP-rs) also revealed a significant motor progression at follow up ($p<0.001$).

Conclusions: Our preliminary data show that the cognitive decline in PSP could be detected by the evolution of visuo- spatial functions over time. Moreover these results also underline that the evaluation of cognitive domains may better detect disease progression in PSP [2, 3].

References:

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