

Poster presentation

## Correlations of memory performance with clinical profile in patients with Parkinson's disease

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### Background

Patients with Parkinson's disease, even in early stages, may have visuo-spatial impairments, memory deficits and disturbance of attentional control and executive function.

### Purpose

The purpose of this study was to investigate the relation of memory performance to the clinical symptoms in patients with Parkinson's disease.

### Materials and methods

Participants and method: Twenty six participants (11 men and 15 women) with Parkinson's disease, aged 46–75 years, with an average of six and a half years of education and 8 years of illness duration, were assessed with the Wechsler Memory Scale Form II (WMS), the MMSE and the Everyday Memory Questionnaire (EMQ).

### Results

Pearson's correlation analysis between total score of MMSE and clinical symptoms indicated correlations between MMSE and age [ $r = -0.479$ ,  $n = 26$ ,  $p < 0.05$ ], MMSE and education [ $r = 0.531$ ,  $n = 26$ ,  $p < 0.01$ ], and also between EMQ and illness duration [ $r = 0.391$ ,  $n = 26$ ,  $p < 0.05$ ]. In addition, significant correlations were found between WMS and clinical profile, and more specifically between digit span and age [ $r = -0.422$ ,  $n = 26$ ,  $p < 0.05$ ], digit span and education [ $r = 0.591$ ,  $n = 26$ ,  $p < 0.01$ ], visual reconstruction and age [ $r = -0.477$ ,  $n = 25$ ,  $p < 0.05$ ], visual reconstruction and education [ $r = 0.566$ ,  $n = 25$ ,  $p < 0.01$ ], new learning and age [ $r = -0.620$ ,  $n = 26$ ,  $p < 0.01$ ], new learning and education [ $r = 0.806$ ,  $n = 26$ ,  $p < 0.01$ ]. Finally, Pearson's correlation analysis between total score

of MMSE and WMS indicated correlations between MMSE and orientation [ $r = 0.473$ ,  $n = 26$ ,  $p < 0.05$ ], MMSE and mental control [ $r = 0.535$ ,  $n = 26$ ,  $p < 0.01$ ], MMSE and digit span [ $r = 0.424$ ,  $n = 26$ ,  $p < 0.05$ ], MMSE and visual reconstruction [ $r = 0.421$ ,  $n = 25$ ,  $p < 0.05$ ] and MMSE and new learning [ $r = 0.503$ ,  $n = 26$ ,  $p < 0.01$ ].

### Discussion

Young and highly educated patients performed better at MMSE and also at most of the WMS scales, as compared to the old patients, whereas increased years of illness duration correlated with deficits in metamemory. Nevertheless, the number of patients is limited enough to allow the generalization of our results, so we expect more significant results in future.

### References

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