

## PW08-01

### SACCADIC EYE MOVEMENTS IN DEMENTIA, MAJOR DEPRESSION AND HEALTHY CONTROLS - RELATIONSHIP WITH COGNITIVE FUNCTIONS

H.-J. Schewe<sup>1</sup>, K. Vohs<sup>2</sup>, R. Uebelhack<sup>1</sup>

<sup>1</sup>Department of Psychiatry and Psychotherapy, Charité Campus Mitte University Medicine Berlin, Berlin, <sup>2</sup>Department of Psychiatry and Psychotherapy, Rostock University, Rostock, Germany

We compared horizontal saccadic eye movements in patients with dementia (n=18), and age-matched patients with major depression (n=18) or healthy controls (n=18). Cognitive functions were evaluated using Mini-Mental-State-Examination (MMSE) and ADAS-cog.

**Results:** Saccadic latency and number of saccadic intrusions were significantly ( $p < 0.001$ ) higher in patients with dementia relative to healthy controls and depressed patients. There were significant correlations between MMSE total score and latency ( $r = -0.78$ ,  $p < 0.01$ ) or number of saccadic intrusions ( $r = -0.80$ ,  $p < 0.001$ ) in the demential group. In addition, both saccadic parameters were significantly associated with ADAS-cog total score of patients with dementia, whereas the subscale "orientation" showed the strongest correlation with latency ( $r = 0.71$ ,  $p < 0.01$ ) and intrusions ( $r = 0.74$ ,  $p < 0.01$ ).

There were no significant differences in saccadic eye movements between healthy controls and patients with major depression as a whole, or a subgroup of depressed patients with the worst cognitive performance (n=9).

**Conclusions:** It seems that disturbances in horizontal saccadic eye movements in patients with dementia are related to the degree of cognitive deficits in these patients. On the other hand, the lack of alterations in horizontal saccadic eye movements in depressed patients despite poor cognitive performance indicates different mechanism.