

P02-151 - THE ANTISACCADIC CNV IN PATIENTS WITH SCHIZOPHRENIA AND PARAPHILIA

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Objectives: The aim of the study was to assess the frontal cortex functioning in schizophrenics and patients with paraphilia using CNV analysis in antisaccade paradigm.

Methods: 9 paranoid schizophrenics, 13 patients with stereotyped forms of paraphilia, and 10 healthy subjects performed horizontal antisaccades. All participants were right-handed males. EEG was recorded from 19 sites. Mean amplitudes of slow negative potentials time-locked to peripheral target (CNV) were analyzed over two intervals: 1000-800 ms (early CNV), and 200-0 ms (late CNV) before peripheral target. Fixation period was 1200-1400 ms.

Results: Significant increase of errors was revealed in patients with schizophrenia (13,6±4,4%) and paraphilia (12,4±2,8%) compared to controls (4,1±1,0%). The significant between-group differences were obtained for the amplitude of early CNV, related to cognitive aspects of preparatory set. Bilateral frontal-central-parietal distribution of early CNV with a maximal amplitude at the saggital sites (Fz, Cz) was observed in control subjects. Significant decline of the CNV amplitude most pronounced in the saggital frontal region (Fz) was found in schizophrenics compared to controls. In patients with paraphilia the negativity zone didn't include central and parietal regions, but CNV amplitude at frontal sites didn't differ from control values.

Conclusions: The obtained results demonstrate that poor antisaccade performance was associated with different neural mechanisms in patients with schizophrenia and paraphilia.

The deficit of frontal activation was found in schizophrenic patients. Lack of the activation of central-parietal region in paraphilia group may reflect dysturbed interaction between cortical and subcortical systems involved in the executive regulation of behavior.