

MEETING ABSTRACT

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Impaired cognitive function in healthy offspring of bipolar patients

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Background

Several recent papers report on impaired of cognitive functions in healthy offspring of patients with bipolar mood disorder [1-3]. The aim of this study was an assessing of the performance on the Wisconsin Card Sorting Test (WCST), measuring executive functions, in the offspring of bipolar patients compared with gender- and age matched healthy subjects.

Materials and methods

Fifty persons (17 male, 33 female), aged 18-52 (30 ± 7) years made the total adult offspring population of patients with bipolar mood disorder. Among them, two had a history of depressive episodes, and another eight scored positively on Mood Disorder Questionnaire [4]. The head-to-head age- and gender-matched healthy subjects were used as a comparison group. The computer version of WCST designed by Heaton et al. (1993) adapted with instructions in Polish was used in all subjects. The following domains of WCST were measured: the percentage of perseverative errors (WCST-P), the percentage of non-perseverative errors (WCST-NP), the number of correctly completed categories (WCST-CC), the percentage of conceptual level responses (WCST-% conc), and the set to the first category (WCST-1st cat).

Results

The results in the total offspring group were significantly inferior compared to matched control group in the categories of perseverative errors (WCST-P) and conceptual responses (WCST-%conc). These differences remained significant after Bonferroni correction. The offspring of patients with some affective morbidity ($n = 10$) did not show differences with forty healthy patients.

Conclusions

The results of our study show the impairment of some aspects of executive functions, connected with prefrontal cortex activity, in healthy offspring of bipolar patients.

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References

1. Bio DS, Rocca CCA, Petresco S, Kreling R, Gutt E, Moreno RA: Neuropsychological evaluation in the offspring of parents with bipolar disorder. *World J Biol Psychiatry* 2007, **8**(suppl 1):100-101.
2. Clark L, Sarna A, Goodwin GM: Impairment of executive function but not memory in first-degree relatives of patients with bipolar I disorder and in euthymic patients with unipolar depression. *Am J Psychiatry* 2005, **162**:1980-198.
3. Gotlib IH, Traill SK, Montoya RL, Joorman J, Chang K: Attention and memory biases in the offspring of parents with bipolar disorder: Indications from a pilot 10 study. *J Child Psychol Psychiatry* 2005, **46**:84-93.
4. Heaton RK, Chelune GJ, Talley JL, Kay GG, Curtis G: *Wisconsin Card Sorting Test Manual*. Psychological Assessment Resources, Odessa, Florida 1993.

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