

N-ACETYL-CYSTEINE IN AUGMENTATION TO ATYPICAL ANTIPSYCHOTICS IMPROVES COGNITIVE SYMPTOMS IN SUBJECTS WITH SCHIZOPHRENIA

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Recent studies have shown that N-acetyl-cysteine added to neuroleptics might ameliorate negative and positive symptoms in schizophrenia. This could be related to the ability to interact with the cysteine/glutamate antiporter and to restore the intraneuronal rate of reduced glutathione. This could also lead to an improvement of cognitive-executive functions.

Objectives: The aim of our study is the evaluation of co-administration of N-acetyl-cysteine (NAC) in cognitive functions in a sample of patients affected by schizophrenia diagnosed according to DSM IV-TR criteria, and treated with stable atypical antipsychotic therapy.

Materials & methods: We administered NAC (1800 mg/die) to 12 male patients, tested each patient at baseline and re-tested after 90 days using a battery of neurocognitive tests (Wisconsin Card Sorting Test, Verbal Fluency Test, Stroop Test) and PANSS scale for severity symptomatology evaluation. The results obtained in each test at baseline were compared with those at the end of the study.

Results: A significant improvement for WCST error numbers (sig. 0.049), VFT fonemic (sig. 0.049), PANSS positive (sig. 0.028), negative (sig. 0.002) and total (sig. 0.024) was observed.

	Mean	SD	Error SD	t	sig.2-code
WCST error nr	17.5	16.53	6.74	2.59	.049*
VFT fonemic	-12	11.37	4.64	-2.58	.049*
VFT semantic	-5.5	11.09	4.52	-1.21	.279
ΔT Stroop Test	20.67	34.79	14.2	1.45	.205
PANSS pos	3.5	2.81	1.14	3.05	.028*
PANSS neg	4.5	1.87	0.76	5.89	.002*
PANSS psycho	0.5	4.76	1.94	0.26	.807
PANSS total	8.5	6.5	2.65	3.2	.024*

[Statistical correlations day 0-day 90 (sig. ≤ 0.05)]

Conclusions: Our results show that co-administration of N-acetyl-cysteine added to atypical antipsychotic therapy improves the cognitive-executive functions. The effectiveness on reducing positive and negative symptoms was confirmed.