ANNALS OF GENERAL PSYCHIATRY

MEETING ABSTRACT Open Access

The effect of psychopathology on set shifting and reversal learning in schizophrenia

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From 1st International Congress on Neurobiology and Clinical Psychopharmacology and European Psychiatric Association Conference on Treatment Guidance
Thessaloniki, Greece. 19-22 November 2009

Background

Recent studies suggest that negative and disorganized symptoms of schizophrenia are modestly associated with cognitive deficits, whereas positive and depressive symptoms are not.

Materials and methods

27 patients with schizophrenia were tested on an intra-dimensional/extra-dimensional set-shifting (IEDS) task of the Cambridge Neuropsychological Test Automated Battery (CANTAB) in an acute psychiatric ward. Their psychopathological state was assessed with PANSS and the Calgary Depression Scale. Correlation analysis was used to examine the association of psychopathology with set shifting and reversal learning performance.

Results

We found significant positive correlations of PANSS total (rho = 0.53, p = 0.016) and general (rho = 0.590, p = 0.006) scores with the intra-dimensional reversal errors in IEDS. No significant correlations of IEDS performance variables with the PANSS positive or negative symptoms scores were found. PANSS disorganization scores showed positive correlations with intra-dimensional reversal errors (rho = 0.639, p = 0.002), but a small negative correlation with the number of completed IEDS stages (rho = -0.392, p = 0.043). No association was detected between depressive symptoms and IEDS task performance.

Conclusions

We found modest associations between symptomatology and the intra-dimensional reversal ability in schizophrenia. These associations are mainly driven by disorganization symptoms. Positive, negative and depressive symptoms are not associated with IEDS performance.

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Published: 22 April 2010

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doi:10.1186/1744-859X-9-S1-S126
Cite this article as: Theochari *et al.*: The effect of psychopathology on set shifting and reversal learning in schizophrenia. *Annals of General Psychiatry* 2010 **9**(Suppl 1):S126.