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Background

In schizophrenia about 40% of patients have an additional diagnosis of metabolic syndrome (MetS). In this present study the effect of MetS on cognition in a relatively young group of patients with schizophrenia was examined.

Methods

290 schizophrenia patients (age/sd = 30/6.37 years old) were included in the study. Patients were divided into two groups, those with and those without MetS (MetS+/MetS-). Neuropsychological performance was assessed with the Wechsler Adult Intelligence Scale-III, the Continuous Performance Test-HQ, the Word Learning Task and the Response Shifting Task.

Results

124 (42%) patients with schizophrenia met the criteria for MetS. MetS+ and MetS- groups did not differ on amount of cigarettes, alcohol, drug use, severity of illness, socioeconomic status and antipsychotic medication. MetS+ had a significantly lower estimated IQ (sd) 94.9 (17.4) compared to MetS- 100.1(16.3) ($t=2.54$; $p=0.012$). MetS+ performed significantly worse on immediate ($t=3.12$; $p=0.002$) and delayed recall ($t=2.92$; $p=0.004$) and processing speed ($t=-2.80$; $p=0.006$) as compared to MetS-. Linear regression analyses revealed that WAIS IQ scores ($p=0.026$) and immediate memory ($p=0.003$) were associated with waist circumference.

Discussion

Patients with schizophrenia and an additional diagnosis of MetS had lower IQ, performed worse on immediate and delayed recall and processing speed as compared to patients without MetS. This suggests that, even at a relatively young age, metabolic abnormalities are related to poor cognition in schizophrenia. Future studies are needed to examine whether treatment of MetS will also have a beneficial effect on cognitive performance in schizophrenia.