

Poster presentation

The relationship of Body Mass Index to aspects of neurocognitive functioning in patients with schizophrenia and normal controls: a pilot study

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Background

The aim of this study is to investigate the relationship of bodyweight, sociodemographic data and clinical variables to aspects of neurocognitive functioning in schizophrenic patients compared to normal controls.

Materials and methods

The study sample included 100 patients suffering from schizophrenia (42 females and 58 males) aged 34 ± 9.82 and 80 normal control subjects (48 females and 32 males) aged 35.87 ± 12.62 . The clinical diagnosis was made according to DSM-IV-TR criteria. Age, height, weight, parental and maternal age at birth and level of education were recorded. Body Mass Index (BMI) was calculated. The psychometric assessment included the PANSS, the YMRS and the MADRS, while the neuropsychologic assessment included the Random Letter Test (RLT), the Graphic Sequence Test (GST), the Copy of Diamonds test (CDT), the Ray Figure and the Clock Drawing Test.

Results

The two groups did not differ in their BMI (schizophrenic patients: 24.35 ± 3.67 vs. controls: 25.50 ± 5.36 ; $p=0.08$). Data analysis revealed significant correlations in the patients with schizophrenia only, between BMI and RLT Intrusion score ($R=-0.35$), education and RLT Omission score ($R=0.30$), PANSS-N score and CDT score ($R=-0.33$)

and MADRS score and Mendez Clock Drawing score ($R=-0.43$). In normal controls significant were the correlations between the GST score and age ($R=-0.33$), BMI ($R=-0.23$) and education ($R=0.24$).

Conclusions

The results of the present study suggest that there is a different and non-overlapping pattern concerning the relationship among sociodemographic variables, body weight and aspects of neurocognitive functioning. The relationship of BMI with concentration in patients with schizophrenia and with a prefrontal function test in normal controls suggests differences in the underlying mechanisms determining similar levels of appetite and body weight in the two study populations.