THE RELATION BETWEEN METABOLIC SYNDROME PARAMETERS AND COGNITIVE FUNCTIONS IN SCHIZOPHRENIA

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Abstract

Objective: Schizophrenia patients are known to have a higher rate of medical problems such as obesity, hypertension, and diabetes mellitus (DM). It is unclear if there is an association between cardio-metabolic risk factors and cognitive functions as well as the extent to which specific areas of cognitive functions are specifically affected. This study aimed to investigate the association between metabolic syndrome parameters and cognitive functions in schizophrenia patients.

Methods: Forty-four schizophrenia patients in remission and forty-five healthy volunteers were included in this comparative case-control study. Stroop Test, Digit Symbol Substitution Test, Trail Making Test Part A and B, and Reaction Time Test were applied to the participants. Levels of triglyceride, high-density lipoprotein (HDL), fasting blood glucose (FBG) and measurements of waist circumference, blood pressure, body mass index (BMI) were obtained. Pearson chi-square test was used to evaluate categorical variables.

Results: In this study, the mean duration of education was significantly higher in the control group than in the schizophrenia group, but no significant difference was found between the groups regarding age and gender. The frequency of obesity was significantly higher in the schizophrenia group than in the control group. HDL level in control group; waist circumference, BMI, and FBG levels were significantly higher in the schizophrenia group. The incidence of metabolic syndrome in schizophrenia group was significantly higher than the control group. All cognitive test results were significantly worse in schizophrenia patients than in the control group.

Discussion: The findings of this study suggest that metabolic syndrome parameters are a risk factor for various medical conditions, as well as a decrease in cognitive function in schizophrenia patients. Metabolic syndrome parameters are more likely to occur in schizophrenia patients with cognitive impairment.

Keywords: Schizophrenia, metabolic syndrome, neuropsychological tests, obesity, dyslipidemia, hypertension, hyperglycemia