
ASSOCIATION OF WHITE BLOOD CELL AND NEUTROPHIL COUNTS WITH METABOLIC SYNDROME IN SCHIZOPHRENIC PATIENTS

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INTRODUCTION: Metabolic syndrome (MS), which consists of several metabolic abnormalities, is highly prevalent in patients with schizophrenia. According to some studies, MS is characterized by a mild chronic inflammatory state, while for the elevated white blood cell (WBC) and neutrophil counts are considered to be positively associated with MS.

AIM: To determine the WBC and neutrophil counts and to establish their possible association with MS and its components in schizophrenic patients.

METHODS: We conducted a cross-sectional study. The study group consisted of schizophrenic patients from the University Clinical Hospital Mostar (n=100), while the control group consisted of healthy subjects who came to the systematic medical examinations in the Health Center Mostar (n=100). The diagnosis of MS was made according to ATP III criteria, and on that basis the subjects from both groups were divided into two subgroups, one with and one without MS.

RESULTS: Schizophrenic subjects had significantly higher average WBC (p<0.001) and neutrophil (p<0.001) counts compared to the control group. Schizophrenic subjects with MS had significantly higher WBC and neutrophil counts compared to both control subgroups. WBC and neutrophil counts correlated positively with fasting blood glucose level and MS prevalence. There were no significant correlations between WBC or neutrophil counts with the number of MS components.

CONCLUSION: WBC and neutrophil counts are positively associated with MS prevalence and fasting glucose level. Routine monitoring of these inflammatory indicators might have an important role in predicting MS development in schizophrenic patients.

Key words: white blood cell count, metabolic syndrome, schizophrenia.