A CROSS-SECTIONAL STUDY OF ADIPONECTIN IN PATIENTS WITH SCHIZOPHRENIA

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Background: Adiponectin is a recently identified adipocytederived protein associated with metabolic abnormailities such as obesity, insulin resistance and diabetes. Metabolic disorders are a growing concern in patients treated with antipsychotic medication.
Methods: Fasting adiponectin levels were assessed in a crosssectional sample of 294 patients with schizophrenia treated with antipsychotic medication. The patients are enrolled in a prospective study evaluating the metabolic effects of antipsychotics. All underwent an extensive metabolic screening, including an oral glucose tolerance test.
Results: Adiponectin levels are correlated with BMI, and differ significantly between patients with normal weight, overweight or obesity (p=0.0001). Patients meeting criteria for the metabolic syndrome, either with NCEP ATP-III criteria (28.2%) or with the more recent IDF criteria (35.7%), have significantly lower adiponectin levels than patients without a metabolic syndrome (p=0.0001). Patients without glucose abnormalities (82.7%) have significantly higher adiponectine levels compared to patients with glucose abnormalities (IFG and/or IGT, 9.9%) or patients meeting ADA criteria for diabetes (7.5%) (p=0.004). Adiponectin levels are lowest in diabetic patients. After controlling for BMI, antipsychotic medication significantly influences adiponectin levels (pb0.01). Adiponectin levels are significantly lower (pb0.05) in patients treated with olanzapine.
Conclusions: In schizophrenic patients, adiponectin levels vary in the same way as described in the normal, overweight and obese non schizophrenic population. Also, adiponectin levels in schizophrenic patients with and without metabolic syndrome mirror what is observed in the general population. Preliminary data suggests that the antipsychotic treatment may influence adiponectin regulation, a finding that should be verified in longitudinal studies.

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