Name of Journal: World Journal of Diabetes

Manuscript NO: 31106

Manuscript Type: Original Article

Retrospective Cohort Study

Prevalence of obesity and diabetes in patients with schizophrenia

Annamalai A *et al*. Obesity and diabetes in schizophrenia

Aniyizhai Annamalai, Urska Kosir, Cenk Tek

Correspondence to: Aniyizhai Annamalai, MD, Assistant Professor, Department of Psychiatry, Yale School of Medicine, 333 Cedar St, New Haven, CT 06519, United states. aniyizhai.annamalai@yale.edu

This study measures the obesity and diabetes rates in a sample of schizophrenia patients treated in a community mental health center and compares these rates with that of the local population. We hypothesized that the prevalence would be higher in the schizophrenia sample. Further, we explored the effect of antipsychotic exposure on diabetes prevalence.

We extracted data by retrospective chart review for the schizophrenia sample and the US Centers for Disease Control (CDC) Behavioral Risk Factors Surveillance System (BRFSS) for the local population control sample. The measures included demographic factors, Body Mass Index (BMI) and presence or absence of diabetes mellitus type 2. We calculated the relationship between primary and outcome variables by General Linear Model (GLM) and odds ratios by binary logistic regression analysis.

The sample included 326 schizophrenia patients and 1899 local population controls. Schizophrenia patients had a higher average BMI, higher percentage of obesity and higher rates of diabetes. The increased risk for obesity and diabetes remained after controlling for demographic factors.

Two findings were of particular interest. First, the increased risk for diabetes remained after controlling for obesity. Hence, diabetes in schizophrenia patients may be mediated by factors other than increased weight gain. Second, within the schizophrenia sample, there was no difference in antipsychotic dosage, use of second-generation antipsychotic medications or use of multiple antipsychotics across BMI categories. This indicates that antipsychotics alone may not be responsible for the increased risk for obesity and diabetes seen in schizophrenia patients. This is an important finding that adds to other studies showing an inherent vulnerability to diabetes in schizophrenia patients.