PREHYPERTENSION, HYPERTENSION AND CARDIOMETABOLIC CHANGES ASSOCIATED WITH ANTIPSYCHOTIC USE IN SCHIZOPHRENIA

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Background: Antipsychotic-induced blood pressure and metabolic changes in the treatment of mental illness is one of the biggest challenges being observed in recent times. Previous research studies have been limited by several confounders.

Aim: This study evaluated the cross-sectional and prospective effects of olanzapine, risperidone and haloperidol on development of prehypertension, hypertension and metabolic changes in drug-naive patients with first-episode schizophrenia and compared them with a healthy matched control group.

Methods: In the first part of the study, a cross-sectional sample of 130 patients on steady doses of antipsychotics was evaluated for the presence of prehypertension, hypertension and metabolic changes. In the second part, newly diagnosed patients with first-episode schizophrenia, randomized in a double blind trial to be treated with antipsychotic medication—olanzapine, risperidone, or haloperidol—and matched healthy controls were followed for 6 weeks. Body mass index (BMI), blood sugar, blood pressure changes and lipid profile changes were monitored and repeated after 6 weeks.

Results: The cross-sectional data revealed a prevalence of obesity in 35.4%, hypertension in 1.5% and metabolic syndrome in 16.2%. In the prospective part, ninety-nine patients with first-episode schizophrenia and 51 healthy controls were examined. Significant changes, between baseline and endpoint, in BMI, serum triglycerides, serum HDL, serum glucose and blood pressure was noted in the patient group (p<0.001) as compared to control group. Olanzapine (P <0.001) was associated with greater incidence in new onset diabetes, prehypertension and hypertensive changes as well as cardiometabolic changes when compared with risperidone and haloperidol.

Conclusions: The results confirm clinically significant and substantial changes induced by antipsychotic treatment in drug-naive patients with first-episode schizophrenia and underscore the need to carry out early monitoring of patients on atypical antipsychotics.