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WAIST CIRCUMFERENCE AS A SIMPLE AND MEANINGFUL MEANS TO ASSESS INSULIN RESISTANCE AMONG OUTPATIENTS WITH BIPOLAR DISORDER

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Aims: To evaluate insulin resistance (IR) among outpatients with bipolar disorder (BD) in order to determine clinical correlates of IR in this patient population.

Method: We performed a cross-sectional study in sixty-five DSM-IV-TR BD patients consecutively assessed from January to August 2007 at the Bipolar Disorder Program, Hospital de Clínicas de Porto Alegre, Brazil. IR was diagnosed using the homeostatic model assessment - insulin resistance (HOMA-IR). Metabolic syndrome (MS) diagnosis and metabolic variables were assessed using three definitions: National Cholesterol Educational Program - Adult Treatment Panel III (NCEP-ATP III); NCEP-ATP III modified criteria and International Diabetes Federation (IDF).

Results: IR was present in 43.1% of the sample (women 40%, men 44.4%). The prevalence of MS defined by the NCEP-ATP III criteria was 32.3%, NCEP-ATP III modified was 40% and IDF was 41.5%. NCEP-ATP III modified criteria showed the best trade-off between sensitivity (78.6%) and specificity (89.2%) to detect insulin resistance. Waist circumference was the best clinical parameter associated with IR in the linear regression model ($B=0.014$, $SE\ 0.002$, $t=6.18$, $p<0.001$). Areas under ROC curves were similar for waist circumference and different MS definitions ($\chi^2=2.98$, $df=3$, $p=0.39$).

Conclusion: Currently MS criteria may provide reasonable sensitivity and specificity for the detection of insulin resistance in patients with bipolar disorder. Waist circumference may be a simple and inexpensive means to predict insulin resistance in this population.