

The Metabolic Syndrome in Bolivian Adolescents

by

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Objective: To describe the prevalence of risk factors and Metabolic Syndrome (MetS) in Bolivian adolescents.

Design: Nationally representative cross-sectional survey.

Subjects: Sample of 2578, age 12-18, (45% males, 55% females) adolescents from the Metabolic Syndrome in Adolescents Study.

Methods: Metabolic Syndrome (MetS) International Diabetes Federation (IDF) criterion components data were evaluated by standard procedures.

Results: The overall prevalence of MetS was 7.7% (girls 8.1%, boys 7.1%). MetS was found in 47.6% of obese, in 19.8% of overweight, in 4.0% healthy weight and absent in thin adolescents. Healthy weight girls presented higher prevalence of MetS ($p=.012$) than healthy weight boys (5.0% vs 2.8%). Prevalence among obese boys was higher ($p=.011$) than in obese girls (59.7% vs 38.3%). Risk factors (1 or more) were present in 86.5% of the adolescents, rising from 75.5% at age 12 to 91.1% at age 18. The prevalent abnormality was low HDL-c level, (79.3%), followed by hypertriglyceridemia (16%), abdominal obesity (15%), high blood glucose (12.7%) and high blood pressure (5.6%).

Conclusion: This is the first nationally representative study carried out in Bolivia to investigate the prevalence of MetS and its components. Given this observed pattern of individual risk factors according to gender and nutritional status, these results add to the evidence supporting the allocation of public health resources for prevention, diagnosis and treatment of MetS in Bolivian adolescents. More research must be carried out to determine the impact that the reported high level of low HDL-c as the other MetS markers will have on the future health of this population.

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