

## Cardiovascular Risks in Adolescents with Different Degrees of Obesity

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The study “Cardiovascular Risks in Adolescents with Different Degrees of Obesity” developed by Lavrador et al<sup>1</sup>, showed associations between the degree of obesity and the variables HDL-Cholesterol, Blood Pressure and Triglycerides, without distinguishing whether the association with blood pressure was verified with both systolic and diastolic pressures, a fact that is considered noteworthy, as several studies in the literature<sup>2-5</sup> have shown that although the systolic and diastolic BP are increased, the association with excess weight has been observed only or more intensely with the systolic blood pressure. We are interested in the subject, as we are currently conducting in Natal (RN) a project that studies Overweight/

Obesity and its association with the other cardiovascular risk factors in Natal, RN, aiming at identifying the prevalence of the different cardiovascular risk factors and the association with overweight and obesity. Our study, at the multiple logistic regression for the association between overweight/obesity with other cardiovascular risk factors, found an association between overweight/obesity with family income, systolic blood pressure, family history of hypertension, family history of obesity, elevated levels of triglycerides and HOMA IR, with no association with diastolic pressure. We also observed that older age and increased HDL cholesterol levels are protective factors in relation to overweight/obesity.

### Keywords

Obesity; adolescent; risk factors; metabolic syndrome; body mass index.

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## Letter to the Editor

### Reply

The objective of the study “Cardiovascular Risks in Adolescents with Different Degrees of Obesity” was to verify the presence of metabolic and blood pressure alterations and their association with the degree of obesity. This set of clinical situations defines the metabolic syndrome, which is related with a higher risk for the development of cardiovascular diseases<sup>1</sup>. In spite of the broad variability observed regarding the prevalence of metabolic syndrome in children and adolescents due to the different diagnostic criteria used, it can be observed that it has been growing concomitantly with the increase of obesity in these age ranges<sup>2,3</sup>.

Our study used diagnostic criteria for arterial hypertension that are well-established in the literature<sup>4,5</sup>, and the bivariate analysis showed significant differences between the systolic and diastolic blood pressure means, when comparing groups of adolescents with higher and lower degrees of obesity.

The associations with a family history of obesity and hypertension and with family income were not the objective of this study, but they have been published in other studies developed by the group with the same population of post-pubertal adolescents from public schools, including overweight and obese adolescents<sup>6-8</sup>.

Sincerely,

**Dr. Maria Silvia Ferrari Lavrador**

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