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The waist/height indicator is pre-monitor of the Metabolic Syndrome, in children from 12 to 15 years of age in a school in the city of Guayaquil-Ecuador

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This is a study carried out in children in Guayaquil-Ecuador, in order to validate the indicator waist/height, with the metabolic syndrome (MS). We hypothesized the w/h index >0.50, pre-hypertension and sedentary lifestyle are three pre-monitors of MS, provided that the children have reached the Tanner V stage of their sexual maturity. 395 students from 10 to 15 years old, apparently healthy, from a densely populated and middle class area, were included. The physical examination and laboratory tests were done in search of the SM (Triglycerides, HDL Col, Glycaemia, abdominal perimeter, and blood pressure) 3 blood pressure measurements were performed, and the BMI was calculated, the w/h indicator, and plasmatic values of Insulin, HOMA, hs PCR and Interleukin 6 were included. The MS was defined according to NCEP ATP III

criteria, modified by De Ferranti. The average age was 12 years. The prevalence of MS was 9.37%. The relationship of the w/h indicator with pre-hypertension and sedentary lifestyle was statistically significant with a P value of 0.001 and 0.003. In children, with normal weight w/h Index is <0.50, where no risk for MS, but with w/h>0.50 a risk of 2.2 times. In children with overweight and w/h<0.50 the risk of MS was 0, while with an I w/h >0.50 the risk was 9.15 %. The use of the w/h I is 100% sensitive for the MS in children aged 10 to 15 years. The w/h indicator is a simple tool, together with pre-hypertension and sedentary lifestyle, are high-sensitivity pre-monitors to predict Metabolic Syndrome.

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