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RV-019 - METABOLICALLY HEALTHY OBESITY: PRESENCE OF ARTERIAL STIFFNESS IN THE PREPUBESCENT POPULATION

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Resumen

Objectives: Our aim was to assess the clinical, analytical, and dietary variables associated with arterial stiffness, measured by pulse wave velocity in a prepubescent population with metabolically healthy obesity.

Methods: A cross-sectional study in prepubescent subjects with obesity who had 1 or none metabolic syndrome criteria (abdominal perimeter and blood pressure ≥ 90th percentile, triglycerides > 150 mg/dL, HDL-cholesterol 100 mg/dL) were conducted. Adherence to Mediterranean Diet, blood pressure, BMI, waist/height ratio (WHtR), glycemic status, lipid profile, and carotid-femoral PWV were analyzed.

Results: 75 MHO children (boys: 43; girls: 32; p = 0.20) (age = 10.05 ± 1.29 years; BMI = 25.29 ± 3.5 kg/m^2) were included. We found a positive correlation between carotid-femoral PWV and weight (r = 0.51; p < 0.0001), BMI (r = 0.44; p < 0.0001), WHtR (r = 0.26; p = 0.02), fasting insulin levels (r = 0.28; p = 0.02), and insulin resistance (HOMA-IR index) (r = 0.25; p = 0.04). Multiple linear regression analysis identified BMI and HOMA-IR as independent parameters associated with PWV.

Conclusions: In MHO prepubescent children, BMI and insulin-resistance status are related to arterial stiffness. PWV could potentially be a useful non-invasive technique to identify cardiovascular risk in childhood.

Bibliography

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