An impaired cardiac diastolic function and adverse cardiac remodelling independently relates to hyperinsulinemia and insulin resistance in obese adolescents, but not to cardiopulmonary exercise capacity

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AIM
To examine associations between cardiac structure/function and cardiometabolic disease risk factors or cardiopulmonary exercise capacity in obese adolescents, to gain greater insights in the aetiology and clinical consequences of cardiac dysfunction.

RESULTS
MATERIAL & METHODS

INTRODUCTION
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MATERIAL & METHODS
• Observational cross-sectional design
• 29 obese and 29 lean adolescents (12-16 years)
• Free of chronic cardiovascular, renal, pulmonary or orthopedic disease

CONCLUSION
In obese adolescents a worse cardiac diastolic function was independently related to hyperinsulinemia and insulin resistance. Such worse cardiac diastolic function was not related to cardiopulmonary exercise capacity.

Abbreviations: p-left ventricle, LA- left atrium, Prostate cancer (s) (0.05) was considered statistically significant.

Table 1: Morphological and functional echocardiographic parameters of obese and lean adolescents.

Table 2: Multivariate regression analyses explaining aberrant echocardiographic parameters.