**LEFT VENTRICULAR DIASTOLIC DYSFUNCTION IN ASYMPTOMATIC ADOLESCENTS: PREVALENCE AND ASSOCIATED FACTORS**

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Objective: To evaluate the prevalence of left ventricular (LV) diastolic dysfunction in asymptomatic adolescents, and demographic and ecocardiographic factors associated with this condition.

Methods: A prospective longitudinal was carried out in 366 patients (161 boys and 205 girls, aged 12-18 years, mean 14.57+/-1.79 years). All subjects were asymptomatic. In all patients anthropometric data and blood pressure were measured; and an echocardiogram was performed. LV diastolic dysfunction diastolic was diagnosed by the presence of E/Ea ratio more than 8 plus one of the following criteria:

a) E/A ratio < 1.0 and deceleration time more than 280 ms;

b) Left atrial volume index more than 40 ml/m2;

c) LV hypertrophy (LV mass index more than 51 gr/m2.7);

d) Atrial fibrillation. A Spearman´s Test was used to evaluate the correlation of LV diastolic dysfunction with associated factors.

Results: The patients presented an average of systolic blood pressure (BP) 100.71+/-12.88 mmHg, diastolic BP 59.73+/-6.69 mmHg, LV mass index 30.45+/-8.12 gr/m2.7, Ejection Fraction 69.12+/-6.37 %, left atrial volume index 10.55+/-3.95 ml/m2, E wave 0.97+/-0.19 m/s, E/A ratio 2.20+/-0.60, Ea septal 0.14+/-0.03 m/s, E/Ea ratio 6.99+/-1.69. We identified 7 patients with LV hypertrophy (1.91%) and 76 patients with E/Ea ratio more than 8 (20.76%). The prevalence of LV diastolic dysfunction was 1.14% (4 patients). The variable correlated with LV diastolic dysfunction was wall thickness relative.

Conclusion: LV diastolic dysfunction is uncommon in adolescents, although certain parameters such as E/Ea are altered in this age group. The increase of E/Ea could constitute a physiological early alteration preceding detectable changes in ventricular geometry.