Abstract: P889

Left ventricle diastolic dysfunction in ambulatory patients with atrial hypertension

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Three or four from four criterias (septal e’ < 7 cm/sec, lateral e’ < 10 cm/sec), average E/e' ratio > 14, left atrial volume index (LAVI) > 34 mL/m2, and peak TR velocity > 2.8 m/sec) need for diagnosis diastolic dysfunction in the presence of normal left ventricle ejection fraction.

Purpose. Investigating the frequency of diastolic dysfunction in the presence of normal left ventricle ejection fraction in ambulatory patients with arterial hypertension.

Materials and methods. The study included 129 ambulatory patients with arterial hypertension aged 66.92±0.97. The control group included 55 people without cardiovascular disease (aged 37.1±1.3). The left ventricular diastolic dysfunction patterns was detected by E/A and e'/a' ratios. The left ventricular diastolic dysfunction was assessed using septal and lateral e', average E/e' ratio, LAVI and systolic pressure of pulmonary artery (SPAP).

Results. The studied patients had a pattern of left ventricular diastolic dysfunction type 1 in 102 cases (E/A=0.72±0.01; e'/a' septal = 0.61±0.01; e'/a' lateral - 0.63±0.02), a pattern of diastolic dysfunction type 2 in 27 cases (E/A=1.26±0.04; e'/a' septal -0.75±0.05; e'/a' lateral-0.77±0.07) compared with the control (E/A = 1.69±0.05; e'/a' septal – 1.54±0.05; e'/a' lateral – 1.84±0.08). Diastolic dysfunction was diagnosed in 23 patients (18%): 6 of them had four criterias (E/e' – 22.97±2,38; e' septal – 4,7±0,41; e' lateral – of 7.02±0,59; LAVI -81.67±5,64; SPAP 43,83±3,24); 17 patients had three criteria (E/e' – 9.23±0.78; e' septal – 5.71±0.30; e' lateral – 8.16±0.42; LAVI - 81.9±6.87; SPAP 32.92±1.96). 83 patients (64%) had two criteria of four: (E/e' – 10,25±0,46; e' septal – 6.69±0,21; e' lateral – 8,82±0,23; LAVI - 38,97±0,68; SPAP 20,48±0,60), that is diastolic dysfunction indeterminated. The remaining 23 patients (18%) had one or no signs (E/e' – 8,7±0,49; e' septal – 7,64±0,28; e' lateral – 9,82±0,3; LAVI -22,73±0,21; SPAP 19,25±1,33), that is, had normal diastolic function.

Conclusions. Thus, in only 18% of cases ambulatory patients with arterial hypertension with left ventricular diastolic dysfunction patterns have criteria of diastolic dysfunction; in 64% of cases diastolic dysfunction indeterminated.