

# Diastolic Function of the Left and Right Ventricles of the Heart in Outpatients with Arterial Hypertension

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## Abstract

The aim of the study is to investigate the impairment of diastolic function of the left ventricle (LV) and the right ventricle (RV) in arterial hypertension outpatients. Materials and methods. Arterial hypertension patients (n=299) and practically healthy people (n=62) were examined on an outpatient basis. Echocardiographically, diastolic dysfunctions of both ventricles were evaluated. Results. All the arterial hypertension patients had a pattern of diastolic dysfunction (DD) of the RV of different grades (grade I RVDD and grade II RVDD), regardless of the presence or absence of pulmonary arterial hypertension. Patterns of grade I LVDD and grade I RVDD were detected in 84 patients. Patterns of grade I LVDD and grade II RVDD were detected in 77 patients. Patterns of grade II LVDD and grade II RVDD were detected in 41 patients. A pattern of grade II RVDD with normal left ventricular diastolic function was detected in 97 patients with a short duration of disease ( $3.92 \pm 0.48$  years) versus the other groups with more than 15 years of hypertension. 175 arterial hypertension patients had grade I or II LVDD only in 18.3% of cases according to the recommendations of the American and European societies of echocardiographers (2016). Conclusion. The patients with a short period of hypertensive disease have only the pseudonormal pattern of RVDD, which can be an early diagnostic marker of heart failure. Echocardiographic diagnosis of diastolic function made according to various criteria can both increase the number of chronic heart failure patients and significantly decrease it.

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