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Influence of the cytoprotective drug meldonium on diastolic dysfunction of the myocardium

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Abstract

Background: The use of myocardial cytoprotectors (meldonium) in patients with exertional angina is a scientific-practical dilemma.

Material and methods: An open randomized clinical trial was conducted involving 160 patients with chronic heart failure (117 men and 43 women) aged 37 to 81 years. Of them, 142 patients had angina pectoris of stable effort from different functional classes, and 21 – unstable angina pectoris. Study groups were comparable according to the frequency of indication of background drugs and meldonium.

Results: The number of patients with normal diastolic function in both groups, but with a net superiority to meldonium combination administration, has considerably increased: 41 patients (91.11%) in group II vs 33 (58.93%) in the group treated with basic treatment after 9 months of medication; 43 patients (95.56%) group II vs 36 (64.29%) in group I at 12 months of medication. During this period, no patients with pseudonormal type of diastolic dysfunction were registered, these passing into a "more" favorable category – delayed relaxation.

Conclusions: The data obtained confirmed the benefit of using cardiocytprotection in inducing the reverse-remodelling of the myocardium of left ventricle regardless of the initial ventricular geometric pattern, but the administration of mildronate combination demonstrated a significantly superior efficiency to the basic treatment in hypertrophy of left ventricle regression, an event notable towards the end of the research period.

Key words: cardiocytprotection, cardiac metabolism, ischemic heart disease.

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