

STUDY OF THE CARDIOPROTECTIVE METABOLIC EFFECTS OF MILDRONATE

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Introduction

Diseases of the cardiovascular system are the leading cause of death in most countries of the world. The epidemiological situation in Moldova is characterized by the term “over-mortality” due to cardiovascular diseases, compared to economically developed countries.

Keywords

Cardioprotective, metabolic effect, angina pectoris

Purpose

Study of possible pharmacodynamic effects, mechanisms of action and toxicity of metabolic drugs - mildronate based on the molecular structure of the pharmaceutical substance.

Material and methods

An open randomized clinical trial was performed that included 160 patients with CPI (117 men and 43 women) with a mean age of 59.26 ± 0.74 years. 142 patients had stable angina pectoris from different functional classes, and 21 - unstable angina pectoris. The control group included 30 practically healthy people. The observation period was 6 weeks.

Results

There was an improvement in the repolarization phase in the form of a reduction in the depth of the "T" wave from 1.5 mm to 0.2 mm ($p < 0.05$). At the end of the observation period, patients treated with mildronate increased exercise tolerance from 310.66 ± 24.74 meters to 476.50 ± 43.5 meters ($p < 0.05$). Mildronate provided a hemodynamic effect in the form of a decrease in blood pressure - systolic from 161.76 ± 4.39 mmHg to 143.4 ± 5.13 mm Hg ($p < 0.05$) and diastolic from 95.09 ± 2.88 mmHg to 87.54 ± 2.52 mmHg ($p = 0.06$). The summary efficacy coefficient of the basic therapy was $15.55 \pm 4.21\%$, and of the complex pharmacotherapy with mildronate $59.16 \pm 3.31\%$ ($p < 0.001$), which is actually 4 times higher.

Conclusions In patients with stable exertional angina pectoris, a 4-fold increase in the efficacy of pharmacotherapy was added to the addition of mildronate due to the more pronounced antianginal effect, improved physical performance, potentiation of positive and hypotensive inotropic effects.

