

Objective of this study was to evaluate and compare the incidence of arterial hypotension and orthostatic hypotension in elderly and senile patients with hypertension and coronary artery disease (CAD) treated with a combination of angiotensin-converting enzyme inhibitors (ACEi) and calcium channel (CCB) or beta-blockers.

Materials and methods. The current study included 97 female and male participants from Krasnodar region with uncontrolled hypertension and CAD. Participants were randomized into two groups. In the first group, target blood pressure (BP) was achieved with ACEi with CCB, in the second — with ACEi and beta-blockers that were administered for 12 weeks. All patients completed questionnaires, had BP checked in the office and undergone 24-hour blood pressure monitoring prior to starting treatment. We also assessed the risk factors for falls according to The Morse Fall Scale (MFS), orthostatic hypotension. After 12 weeks of treatment, office BP was re-checked and 24-hour BP monitoring with systolic and diastolic hypotension time index (HTI) calculations were performed.

Results. After 12 weeks of treatment, statistically significant reduction of office BP readings, heart rate (HR), main 12-hour BP monitoring parameters was noted in the patients from both groups. Target BP was achieved in 41 patients from the first group and 39 patients from the second group. Reduction in the main 12-hour BP monitoring parameters didn't depend on the administered anti-hypertensive drug combination. Fall risk according to MFS was significantly lower in patients treated with amlodipine plus perindopril compared with those who took bisoprolol and perindopril (20 points vs 27 points respectively, $p<0.05$). Patients treated with amlodipine and perindopril lost balance in the «standing with feet together» position in 19.1 % of cases, in the «tandem» or «semi-tandem» position — in 28.6 % of cases that is lower than in the bisoprolol and perindopril group (28.3 % and 39.1 % cases respectively, $p<0.05$). SHTI in amlodipine and perindopril group was lower than in the bisoprolol and perindopril group during the day (16 % vs 25 %, respectively, $p<0.05$) and night (18 % vs 28 %, respectively, $p<0.05$).

Conclusion. According to the results of this study, further research of high blood pressure treatment risks, the effects of different pharmacologic agents and their combinations on arterial hypotension seems reasonable and is needed for the development of optimal personalized treatment plans.