**Aronow W.S. Treatment of Hypertension in Patients With Coronary Artery Disease**

International Heart and Vascular Disease Journal. 2015; 8: 3-10

**Abstract**

Patients with coronary artery disease should have their modifiable coronary risk factors intensively treated. Dietary sodium should be reduced. Hypertension should be treated with beta blockers and angiotensin-converting enzyme inhibitors or angiotensin receptor blockers. Long-acting nitrates are effective antianginal and antiisch-emic drugs. Calcium channel blockers may be added if angina persists despite beta blockers and long-acting nitrates... The American Heart Association/American Society of Cardiology 2015 guidelines recommend that the target blood pressure should be less than 140/90 mm Hg in patients with coronary artery disease and with an acute coronary syndrome if they are aged 80 years and younger but less than 150 mm Hg if they are older than 80 years of age. Octogenarians should be checked for orthostatic changes with standing, and a a systolic blood pressure less than 130 mm Hg and a diastolic blood pressure less than 65 mm Hg should be avoided. Caution is advised in causing a diastolic blood pressure less than 60 mm Hg in patients with diabetes mellitus or in patients older than 60 years of age. In addition to the beta blockers carvedilol, metoprolol CR/XL, and bisoprolol, patients with hypertension and congestive heart failure should be treated with diuretics and angiotensin-converting en-zyme inhibitors or angiotensin receptor blockers, and patients with persistent severe symptoms with aldosterone antagonists if not contraindicated.

**Keywords**

Myocardial infarction; coronary artery disease; hypertension; beta blockers; angiotensin-converting enzyme in-hibitors; aldosterone antagonists; calcium channel blockers; nitrates

**Koshelskaya O.A., Zhuravleva O.A. Combined therapy’s antihypertensive efficacy and influence on metabolic parameters in patients with arterial hypertension and diabetes mellitus**

International Heart and Vascular Disease Journal. 2016; 10: 33-40

**Summary**

**Objective.** To compare three regimen of long-term combined antihypertensive therapy in order to reach target levels of blood pressure (BP), dynamics of daily BP profile and metabolic parameters in patients with arterial hypertension (AH) associated with diabetes mellitus, type 2 (DM-2).

**Materials and methods.** 69 patients with the combination of AH and DM-2 completed the treatment course (male/female 22/47; averageage 57,1±6,5 years). Target BP <130/80 mm Hg. in the group №1 (n=22) was achieved using the combination of per-indopril arginine, indapamide retard and amlodipine, in the group №2 (n=25) it was reached with the combination of valsartan, indapamide retard and amlodipine, and in the group №3 (n=22) – using the combination of amlodip-ine, indapamide retard and metoprolol succinate. Body weight and the levels of office BP, 24 hour ambulatory BP monitoring, parameters of lipid and carbohydrate metabolism were measured before prescription of drugs and 30-32 weeks after and HOMA index was quantified.

**Results.** The degree of office BP levels reduction didn’t differ in all three groups of patients. Values of systolic BP (SBP) and diastolic BP (DBP) “load” for 24 were higher in the patients of the group №3 comparing with the group №1, and achieved levels of night SBP were higher than in the group №1 and the group №2. The treatment based on perindopril arginine and amlodipine and not the combination of valsartan and amlodipine led to decrease of bodyweight and HbA1c serum levels. Patients of groups №1 and 2 were united into one common group of therapy basedon renin-angiotensin-aldosterone system (RAAS) blockers, and after the treatment increased levels of high density lipids cholesterol (HDL cholesterol) levels (from 1,29±0,2 to 1,45±0,3 mmol/L, p=0,006) and improved glycemiccontrol (expressed as HbA1c levels reduction from 8,1±2,2% to 7,0±2,3% (р=0,01)) were detected, and it was present in case of unchanged glucose-lowering therapy and was realized in case of three-component regimen (afteraddition of amlodipine). Combination of metoprolol succinate, indapamide retard and amlodipine was consideredas metabolically neutral in patients with DM-2.

**Conclusion.** Although all three antihypertensive therapy regimens allow to reach target BP levels in the majority of patientswith AH+DM-2, the value of night AH correction and metabolic effects of this therapy re not equal.

**Key words**

Arterial hypertension, diabetes mellitus, combined therapy, circadian rhythm, metabolic effects.

**Andreeva G F., Deev A.D. Interrelation between severity of seasonal changes of blood pressure at night and in the morning and life quality characteristics in patients with arterial hypertension.**

International Heart and Vascular Disease Journal. 2017; 15:19-25

**Summary**

**Objective.** To evaluate the impact of omega-3 polyunsaturated fatty acids (PUSFA) on myocardial arrhythmic activity and characteristics of cardiac rhythm variability in patients with unstable angina

**Materials and methods.** We’ve conducted an open randomized trial that involved 41 patients aged 45-70 years and diagnosed with coronary heart disease (CHD): unstable angina. All patients underwent standard complex therapy. Patients were subdi- vided into two groups: omega-3 PUSFA supplement (1g/day) was added to the therapy in the first (main) group, whereas the patients of the second (control) group received standard therapy. Patients underwent 24-h electro- cardiogram (ECG) monitoring with estimation of ventricular and supraventricular extrasystolic activity and main characteristics of cardiac rhythm variability on the 3rd and 14th days of treatment.

**Results.** Estimation of supraventricular activity during 24 hours revealed significant reduction of the number of extrasysto- les both in the main and control groups (reduction from 40.5 (21.8-122.5) to 29.5 (6-68.3) in the main group (p<0.01) and reduction from 10 (0-18) to 7.5 (3.8-56.3) in the control group (p<0.05). Differences between groups were statistically significant. In the main group the number of ventricular extrasystoles reduced significantly from 7.5 (1.8-31.8) to 1 (0-18.8), p<0.05. Comparison of cardiac rhythm variability parameters revealed significant increase of SDNN (by 38% and 28.7% in main and control groups, respectively, p<0.01) and HF in both groups (p<0.05), pNN50 and VLF in the main group by 41.4% and 21.5%, respectively (p<0.01, p<0.05).

**Conclusion.** Addition of omega-3 PUSFA (1g/day) supplement to the complex therapy of patients with unstable angina leads to reduction of ventricular arrhythmic activity and increases total reserve of neurohumoral regulation.

**Key words**

Omega-3 polyunsaturated fatty acids, unstable angina, arrhythmic activity, cardiac rhythm variability.

**New classification of arterial hypertension according to the ACC/AHA clinical guidelines-2017: opinions of Russian experts.**

International Heart and Vascular Disease Journal. 2018; 17: 41-45

**Summary**

This article includes 7 opinions of the leading experts of different regions of Russia related to new revision of arterial hypertension (AH) classification as part of clinical guidelines that have been published in the Journal of the American College of Cardiology and in the AHA Journal of Hypertension. These changes are related to the levels of systolic blood pressure (BP) 130–139 mm Hg and/or diastolic BP 80–89 mm Hg that are classified now as the Grade 1 AH. Updated guideline also contains new target values for patients undergoing AH treatment. Opinions of Russian experts differ. Some of them think that these guidelines are inappropriate for Russia, and that it is necessary to wait for the guidelines of the European Society of Cardiology. At the same time, this change of classification can be considered as a positive phenomenon for AH detection and prevention.

**Key words**

Arterial hypertension, new classification, clinical guidelines.

**Wilbert S. Aronow.**

**Treatment of hypertension.**

International Heart and Vascular Disease Journal. 2018; 18: 37-45

Abstract

Automated validated devices should be used to measure blood pressure (BP). A systolic BP between 120–129 mm Hg with a diastolic BP < 80 mm Hg should be treated by lifestyle measures. Treat with lifestyle measures plus BP lowering drugs for secondary prevention of recurrent cardiovascular disease events in patients with clinical cardiovascular disease (coronary heart disease, congestive heart failure, and stroke) and an average systolic BP of ≥130 mm Hg or an average diastolic BP ≥ 80 mm Hg. Treat with lifestyle measures plus BP lowering drugs for primary prevention of cardiovascular disease in patients with an estimated 10-year risk of atherosclerotic cardiovascular disease ≥ 10 %and an average systolic BP ≥130 mm Hg or an average diastolic BP ≥80 mm Hg. Treat with lifestyle measures plus BP lowering drugs for primary prevention of cardiovascular disease in patients with an estimated 10-year risk of atherosclerotic cardiovascular disease of < 10 %and an average systolic BP ≥140 mm Hg or an average diastolic BP ≥ 90 mm Hg. Treat with antihypertensive drug therapy with 2 first-line drugs from different classes either as separate agents or in a fixed-dose combination in patients with a BP ≥140/90 mm Hg or with a BP > 20/10 mm Hg above their blood pressure target. White coat hypertension must be excluded before starting treatment with antihypertensive drugs in patients with hypertension at low risk for atherosclerotic cardiovascular disease. Antihypertensive drug therapy for different disorders is discussed.

Keywords

Hypertension; systolic blood pressure; diastolic blood pressure; antihypertensive drugs; lifestyle measures.

**Filippov E.V., Nizov A.A., Suchkova E.I., Selyavina O.N., Aksenova N.V., Belenikina Ya. A. Remote monitoring of blood pressure: prospects for use and assessment of effectiveness.** International Journal of Heart and Vascular Diseases. 2020; 8 (27): 21-28

**Abstract**

To assess the clinical effectiveness and prospects of remote ambulatory blood pressure (BP) monitoring in patients with hypertension (HTN).

**Materials and methods.** The study enrolled 100 patients with uncontrolled HTN who performed self-measured blood pressure monitoring twice daily using the devices with the option of transmitting measurements to the remote monitoring center via a GSM channel. The information was processed and then transmitted to the physician’s personal account in order to assist clinical decisions.

**Results.** Over the 6-month observation period target blood pressure levels of 135/85 mmHg were achieved in 70 % of patients. In most cases antihypertensive therapy was corrected by changing the drug dosing or increasing the number of medications.

**Conclusion.** Remote blood pressure monitoring is an effective and reliable way to control blood pressure.

**Keywords**

Arterial hypertension, blood pressure, telemedicine, remote monitoring.

**Lozhkina M.V., Kovalenko E.V., Arabidze G.G.**

**Modern possibilities of angiotensin II receptor antagonists in clinical practice.**

International Heart and Vascular Disease Journal. 2020; 8 (26):30-37

**Summary**

Renin-angiotensin aldosterone system hyperactivation is one of the main mechanisms of cardiovascular diseases progression. Nowadays angiotensin II receptor antagonists have a sufficient evidence base as antihypertensive drugs with organoprotective properties. This article presents and substantiates the possibilities of one of angiotensin II receptor antagonist — telmisartan, in various clinical cases from the perspective of evidence-based medicine.

**Key words**

Angiotensin II receptor antagonists, telmisartan, organoprotective properties, cardiovascular risk.