P10.07: PERINDOPRIL THERAPY IMPROVES ENDOTHELIAL FUNCTION AND ARTERIAL STIFFNESS IN HEART FAILURE WITH PRESERVED SYSTOLIC FUNCTION

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Conclusions: memory scores.

Methods: 50 patients with exertional dyspnoea were included in the study, I-II NYHA, EF<45%, ethiology of HF - hypertension, aged 62,3±(8,4), female 56%, BMI 29,9 kg/m². Arterial stiffness was measured by applanation tonometry (Sphygmocor): carotid-femoral PWV and MAP, central pulse pressure (PP), aortic augmentation index (AIX); endothelial function was assessed by photoplethysmography using low arm occlusion, clinical status with MQLHF and 6-minutes walk-test (6MWT) at baseline and in 12-month. All patients were on perindopril therapy, start dose 4mg, mean dose 8 mg.

Results: 12-months therapy resulted in improvement of endothelial function, decreasing of arterial stiffness, clinical improvement. PWV decreased from 10 (8,6;11,9) to 8,8(8,6;11) (p=0,05); endothelial function improved from 1,25[1,09;1,52] to 1,42[1,21;1,64] (p=0,05), parameters of central hemodynamics changed: MAP from 105,5 (97,5;115,5) to 102(97;106) mmHg; CSBP from 145(132;152) to 130(122;138)mmHg; CDBP from 85 (79;93) to 80 (79;87)mmHg; AIX from 29,5[24,5;34,5] to 28[22,22] . Clinical status: NYHA FC from 2(1;2) to 1(1;1), MQLHF from 39,5(27;47) to 32 (24;39), 6MWT from 390(375;420) to 460(450;470).

Conclusions: 12-months perindopril therapy improved endothelial function, led to reduction of arterial stiffness and resulted in improvement of clinical status of diastolic HF patients, that suggests that perindopril should be considered therapeutically useful in diastolic HF treatment.

P10.07
PERINDOPRIL THERAPY IMPROVES ENDOTHELIAL FUNCTION AND ARTERIAL STIFFNESS IN HEART FAILURE WITH PRESERVED SYSTOLIC FUNCTION
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Background: Number of heart failure patients with preserved systolic function increases with every year, vascular load is one of the leading determinants in ventriculo-vascular coupling and ventricular function.

Aim: to assess endothelial function by photoplethysmography and arterial stiffness on perindopril therapy in HF patients with preserved systolic function.

Methods: 50 patients with exertional dyspnoea were included in the study, I-II NYHA, EF<45%, ethiology of HF - hypertension, aged 62,3±(8,4), female 56%, BMI 29,9 kg/m². Arterial stiffness was measured by applanation tonometry (Sphygmocor): carotid-femoral PWV and MAP, central pulse pressure (PP), aortic augmentation index (AIX); endothelial function was assessed by photoplethysmography using low arm occlusion, clinical status with MQLHF and 6-minutes walk-test (6MWT) at baseline and in 12-month. All patients were on perindopril therapy, start dose 4mg, mean dose 8 mg.

Results: 12-months therapy resulted in improvement of endothelial function, decreasing of arterial stiffness, clinical improvement. PWV decreased from 10 (8,6;11,9) to 8,8(8,6;11) (p=0,05); endothelial function improved from 1,25[1,09;1,52] to 1,42[1,21;1,64] (p=0,05), parameters of central hemodynamics changed: MAP from 105,5 (97,5;115,5) to 102(97;106) mmHg; CSBP from 145(132;152) to 130(122;138)mmHg; CDBP from 85 (79;93) to 80 (79;87)mmHg; AIX from 29,5[24,5;34,5] to 28[22,22] . Clinical status: NYHA FC from 2(1;2) to 1(1;1), MQLHF from 39,5(27;47) to 32 (24;39), 6MWT from 390(375;420) to 460(450;470).

Conclusions: 12-months perindopril therapy improved endothelial function, led to reduction of arterial stiffness and resulted in improvement of clinical status of diastolic HF patients, that suggests that perindopril should be considered therapeutically useful in diastolic HF treatment.

P10.08
THE BRACHIAL ARTERY ENDOTHELIAL FUNCTION UNDER THE INFLUENCE OF VASODILATORY ANTIHYPERTENSIVE TREATMENT
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Objective: To investigate and compare the endothelium-dependent vasorelaxation dynamics when administering beta—blockers carvedilol, nebivolol and calcium antagonist amlopidine to patients with essential arterial hypertension (AH).

Methods: Ninety patients with 1-2 grades AH aged 30-55 years were studied. All patients were randomized to receive carvedilol (n=45), nebivolol (n=25) and amlopidine (n=25) in initial daily doses of 25, 5 and 5 mg respectively. In two weeks if office BP level of 140/90 mmHg was not attained the dose of medicine was doubled. In four weeks in cases of uncontrolled AH the indapamide 1.5 mg was added. The length of administering period was 8 weeks. Endothelial function (EF) was evaluated with the help of flow mediated dilatation (FMD) test. The ambulatory BP monitoring (ABPM) was held.

Results: An average daily dose of carvedilol, nebivolol and amlopidine amounted to 31.4±16.2, 5.7±2.4 and 6.4±2.6 mg. Mean 24-h systolic and diastolic BP significantly decreased in all groups. We also observed that the degree of brachial artery flow mediated dilation reliably increased by +5.5%, +1.6% and +4.6% under the influence of carvedilol, nebivolol and amlopidine respectively. At the same time the share of patients with full recovering of EF (brachial artery FMD >10%) increased significantly only in carvedilol group — from 4.5% to 27.3% (p2=0.004).

Conclusion: In hypertensive patients the brachial artery endothelial function significantly increased under the influence of vasoactive antihypertensive drugs carvedilol, nebivolol and amlopidine. The greatest effect on brachial artery flow mediated dilatation was observed in carvedilol group.