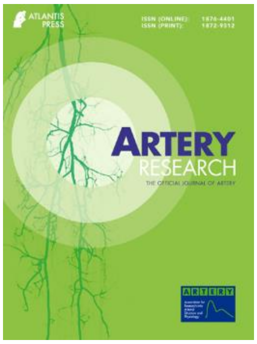

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P10.10: EFFECT OF THE TREATMENT OF RHEUMATOID ARTHRITIS WITH ANTI-TNF-A INFLIXIMAB ON ARTERIAL WALL STIFFNESS PARAMETERS

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echocardiographic findings. Distensibility (D) of forearm large arteries was calculated as a ratio between volume pulse amplitude and pulse pressure. Forearm vascular resistance (FVR) was calculated from data on mean arterial pressure and forearm blood flow measured by venous occlusion plethysmography.
Results: It was stated that Verapamil significantly reduces systolic (-18,8±1,9 mmHg), diastolic (-8,7±1,2 mmHg), mean (-13,7±1,6 mmHg) and pulse (-12,5±1,5 mmHg) pressure. D of forearm large arteries in all investigated patients increases by 53±4%, whereas FVR did not change uniformly. In the case when hypotensive effect was caused by a decrease in CO, FVR did not change, but in the case when hypotensive effect was ensured by a decrease in SVR, the inverse relationship existed between changes in SVR and FVR (r = -0,6).
Conclusions: During effective treatment of essential hypertensives with Verapamil contractile activity of forearm large arteries always decreases, whereas precapillary vessels obviously are involved in counterregulation and this masks direct vasodilator effect of Verapamil on arterial smooth muscles.

P10.10
EFFECT OF THE TREATMENT OF RHEUMATOID ARTHRITIS WITH ANTI-TNF-A INFLIXIMAB ON ARTERIAL WALL STIFFNESS PARAMETERS

A. Cypiene [1,2], A. Laucevicius [1,2], J. Dadoniene [2], A. Venalis [2], Z. Petrulioniene [1], L. Ryliskyte [1], M. Kovaite [1]
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Background: Rheumatoid arthritis (RA) is a chronic inflammatory, autoimmune disease, which may lead to arterial dysfunction. Treatment with anti-TNF-α infliximab can influence not only inflammation, disease activity, but can also greatly impact arterial wall function.
Aim of the study was to assess whether aortic augmentation index (AIx) and regional carotid-radial pulse wave velocity (PWV) were altered in RA patients treated with infliximab.
Methods: We examined 75 RA patients (age 42.03±10.69 years) with high disease activity (DAS28 5.40±0.93), 16 of them were treated with infliximab. AIx and PWV were assessed non-invasively by applanation tonometry (Sphygmocor v.7.01, AtCor Medical).
Results: By multiple regression analysis we have found that carotid-radial PWV depends only on mean blood pressure (MBP) and infliximab therapy. To test the influence of infliximab on arterial wall parameters, binary variable indicating the intake of infliximab was added to the list of independent predictors. The same forward analysis was applied after that. It has been established that infliximab reduced the values of PWV as compare with patients not treated with infliximab (7.69±0.69 vs. 8.61±1.02; p=0.001). However, no similar trend was observed for AIx (18.38±12.48 vs. 24.56±11.44; p=0.094). The estimated regression coefficient have implied that given fixed MBP, the mean PWV can be reduced approximately to 0.886 m/s in patients treated with infliximab.
Conclusions: The treatment with anti-TNF-α infliximab can influence the conduit arteries. Carotid-radial PWV may serve as a good marker to decide upon infliximab.

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P11.01
AMBULATORY ARTERIAL STIFFNESS INDEX (AASI) IS CORRELATED TO EA/EMAX, NOT PULSE WAVE VELOCITY IN PATIENTS WITH RESISTANT HYPERTENSION (RH) AND TYPE-II-DIABETES MELLITUS

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Objective: To examine if AASI is correlated to arterial stiffness in patients with RH and type-II-diabetes mellitus.

Characteristic	Controlled hypertension	Resistant hypertension	P	Adjusted P
Sex (male/female)	15/9	27/7		
Age (years)	62±10	64±9	0.49	
Body mass index (kg/m^2)	34±7	35±5	0.31	0.21
Length of disease (years)	10.4±6.3	14±7	0.02	0.02
Pulse pressure (mmHg)	50±8	66±9	<0.0001	<0.0001
Mean arterial pressure (mmHg)	88±4	96±7	<0.0001	<0.0001
Ambulatory arterial stiffness index	0.55±0.14	0.57±0.13	0.564	0.56
Heart rate (bpm)	74±11	71±13	0.312	0.24
Pulse wave velocity (m/s)	9.7±3	12.1±5	0.042	0.39
Characteristic impedance	0.07±0.03	0.1±0.1	0.031	0.05
E_A(mmHg/ml)	1.63±0.5	1.86±0.6	0.12	0.06
E_{MAX}(mmHg/ml)	2.7±1	2.1±0.9	0.023	0.08
E_A/E_{MAX}	0.7±0.3	1.1±0.5	0.003	0.005
Ejection fraction (%)	55±10	45±11	< 0.0001	0.001

Ambulatory arterial stiffness index (AASI) is correlated to E_A/E_{MAX}, not pulse wave velocity in patients with resistant hypertension (RH) and type- II-diabetes mellitus P 11.01

Methods: We included 87 patients. RH was defined according to guidelines from the American Heart Association.
Echocardiography was performed using GE Vivid 7and pulse wave analysis using Sphygmocor. All examinations were performed under standardized conditions. All analyses were done blinded offline using Echopac and customized software.
Ambulatory blood pressure (BP) measurement was done using Kivex TM 2430 and Spacelab 90217. All parameters were adjusted for sex, age, length of disease and heart rate using multiple linear regression. Spearman's rank correlation was used to estimate correlation between groups.
Results: 34 patients had RH and 24 had controlled hypertension (CH) leaving 29 with uncontrolled hypertension. See table 1 for patient characteristics. Patients were comparable with regards to age and body mass index. AASI did not differ significantly between groups. Pulse pressure, mean arterial pressure and length of disease varied significantly between groups. AASI and PWV was not correlated (Spearman's rho = 0.08 , P = 0.57).Neither was AASI and characteristic impedance (Spearman's rho = 0.1, P=0.44) However when comparing AASI and E_A/E_{MAX} we found positive correlation (Spearman's rho 0.36 , P=0.006) and when comparing AASI and ejection fraction (Spearman's rho = -0.29 , P = 0.02) negative correlation.
Conclusion: AASI is not correlated to PWV or characteristic impedance, which are measures of arterial stiffness, but to E_A/E_{MAX} and ejection fraction, which might suggest that AASI does not reflect arterial stiffness, but ventriculo-vascular coupling.

P11.02
BRAIN WHITE MATTER LESIONS AND ARTERIAL WALL PARAMETERS IN MIGRAINE PATIENTS

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Background: Migraine is a benign neurological disease, however, some migraineurs develop asymptomatic lesions in the deep white matter (DWMLs) whose origins still need to be clarified.
Objective: To evaluate relationship between DWMLs and traditional cardiovascular risk factors, arterial wall parameters (carotid intima-media thickness, distensibility and stiffness (CS), augmentation index (AIx) and aortic pulse wave velocity) and right-to-left shunts (RLS) in migraine patients.
Methods: 114 active migraineurs (mean age 35.9±9.6 years, 22 (19.3%) males, 50 (43.9%) with aura) participated in the study. Magnetic resonance imaging was performed with a 1.5-T scanner. DWMLs load was assessed