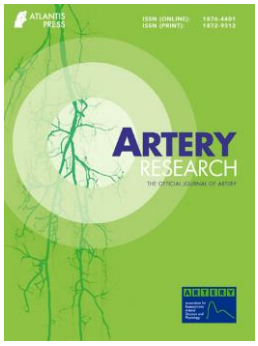

Artery Research

ISSN (Online): 1876-4401 ISSN (Print): 1872-9312
Journal Home Page: https://www.atlantis-press.com/journals/artres

P2.14: PARAMETERS OF ARTERIAL STIFFNESS IN OSTEOARTHRITIS PATIENTS AND IN HEALTHY CONTROLS

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To cite this article: Kaspar Tootsi*, Aare Märtson, Mihkel Zilmer, Kaido Paapstel, Jaak Kals (2015) P2.14: PARAMETERS OF ARTERIAL STIFFNESS IN OSTEOARTHRITIS PATIENTS AND IN HEALTHY CONTROLS, Artery Research 12:C, 9–9, DOI: https://doi.org/10.1016/j.artres.2015.10.220

To link to this article: https://doi.org/10.1016/j.artres.2015.10.220

Published online: 7 December 2019

for increasing age (20-80y) and decreasing DBP (100-60mmHg). Standardized hazard ratio (HR) mean[95% confidence interval](p-value) for NLM was 1.7 [1.18-2.45](p=0.005) for DBP<=78mmHg (63 deaths) and 0.78[0.47-1.30](p=0.34) DBP>78mmHg (40 deaths). Similar HR values were found without adjustment. CONCLUSION: Arterial nonlinearity predicts mortality in hypertensive patients with low ambulatory DBP.

P2.13
BLOOD PRESSURE PROFILE CHANGES BETWEEN 7TH AND 11TH YEAR OF LIFE IN CHILDREN BORN PREMATURELY WITH EXTREMELY LOW BIRTH WEIGHT IN COMPARISON TO CHILDREN BORN ON TIME

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There have been research trials analyzing the impact of prematurity on the prevalence of hypertension, however the prospective, long-time observation is uncommon. The aim of this study was to evaluate the prevalence of hypertension at the age of 7 and 11 years of regional cohort of preterms with birth weight ≤1000g.
The study included 67 children with birth weight ≤1000g born in Malopolska. The control group consisted of 38 children born at term, matched for age. Each child underwent 24-hour ambulatory blood pressure measurement twice — at the age of 7 and 11 years. The presence of hypertension based on two definitions: 1) Mean Arterial Pressure ≥95 percentile for gender and height; 2) number of individual measurements ≥95 percentile for gender, age and height >25% was estimated.
At the age of 7 years preterm infants had significantly higher incidence of hypertension, defined on the basis of MAP (15%vs.0%; p<0.015), and on the percent of individual measurements (56%vs.33%, p<0.036). After taking into account the group of patients who received anti-HT treatment after first part of study, the incidence of hypertension at the age of 11 based on MAP was 19%vs.10% and based on individual measurements was 36,5%vs.24% (the differences are not statistically significant). In both time points a higher mean heart rate in the group of preterms was found (7 years of age: 93vs.87/min., p<0.001; 11 years of age 87vs.83/min, p=0.039).
Children born prematurely are predisposed to hypertension in later life. Persistence of increased heart rate in former preterms was shown.

P2.14
PARAMETERS OF ARTERIAL STIFFNESS IN OSTEOARTHRITIS PATIENTS AND IN HEALTHY CONTROLS

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Osteoarthritis (OA) and cardiovascular diseases (CVD) are prevalent conditions and often co-exist. Vascular involvement in pathogenesis of CVD and OA gives reason to investigate arterial stiffness in OA. The aim of this study is to investigate the associations between OA and arterial stiffness.
Arterial stiffness characteristics were measured with Sphygmocor device in 54 patients (age 62 ± 7,4 years (mean ± SD)) with end-stage osteoarthritis before knee and hip replacement and compared to 54 age and sex matched controls (61 ± 7,0 years). Independent Student's t-test was used to compare the means. Correlation between variables was determined using Pearson's correlation analysis and multiple regression analysis.
Aortic pulse wave velocity and augmentation index were increased in patients with OA compared to controls (8,8±1,6 m/s vs 7,9±1,5 m/s, p=0,004; 25,2±9,3% vs 21,2±10,4%, p= 0,04, respectively). The small artery elasticity index was significantly lower in OA patients than in healthy controls (3,2 (2,20-6,05)ml/mmHg×100 (median (interquartile range) vs 5,08 (3,1-8,39)ml/mmHg×100, p=0,007, respectively). The level of central systolic and diastolic blood pressure were related to LDL- cholesterol (r=0,42; p=0,002; r=0,37; p=0,006, respectively) and urea (r=0,51; p<0,001) and urea level was also associated with aortic pulse wave velocity in the patients (r=0,51; p<0,001)
This study shows that patients with OA have increased arterial stiffness compared to healthy controls. Potential link between arterial stiffening and OA could suggest that alterations are involved in OA pathogenesis and be responsible for increased cardiovascular risk in OA patients.

P2.15
IRRITABLE AFFECTIVE TEMPERAMENT IS A PREDICTOR OF PULSE WAVE VELOCITY, WHEREAS HYPERTHYMIC AFFECTIVE TEMPERAMENT DETERMINES AUGMENTATION INDEX IN CHRONIC HYPERTENSION

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Background: Affective temperaments (anxious, depressive, cyclothymic, irritable and hyperthymic) are subclinical manifestations of major mood disorders and there is cumulating evidence about their involvement is somatic disorders as well. The aim of our study was to evaluate the associations of affective temperament scores with arterial stiffness parameters in hypertensive patients.
Methods: In this cross-sectional study, chronic, well-controlled hypertensive patients, with no history of depression, completed the TEMPS-A, Beck Depression Inventory (BDI) and Hamilton Anxiety Scale (HAM-A) autoquestionnaires in three GP practices. Arterial stiffness was measured with the tonometric PulsePen device.
Results: Altogether 183 patients were involved. In regression analysis irritable temperament score was a predictor of pulse wave velocity (adjusted for age, brachial systolic blood pressure, onset of hypertension, serum glucose, GFR-EPI, BDI and HAM-A, β=0.170, p=0.031), whereas hyperthymic temperament score was a predictor of augmentation index (adjusted for age, gender, smoking, heart rate, BDI and HAM-A, β=-0.211, p=0.004).
Limitations: The cross-sectional design of the study precludes the evaluation of causality.
Conclusion: Our results suggest that high irritable temperament score might be a marker of increased, whereas high hyperthymic score a decreased cardiovascular risk among chronic hypertensive patients, however, follow-up studies are required to confirm this hypothesis. The evaluation of affective temperaments seems to be a potential tool to study psychosomatic processes.

P2.17
FEASIBILITY OF USING COMPLIOR ANALYSE TO MEASURE CENTRAL SYSTOLIC BLOOD PRESSURE DURING DIALYSIS

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Central systolic blood pressure (cSBP) could be helpful to monitor hypotension during dialysis. However most cSBP devices are based on peripheral estimates which might be unreliable during the specific hemodynamic state of dialysis. Complior Analyse (Alam Medical, France) presents the advantage of measuring cSBP, hand-free, directly from the carotid artery with no mathematical estimation. Our study aims document cSBP variability from Complior Analyse before and during dialysis.
cSBP was measured in 19 stable patients (10M/9F, age:65±16yrs) with regular heart rate who underwent dialysis in Fresenius center, Montfermeil hospital, France (10 patients before dialysis, 13 patients 130±24min after the start of dialysis including 4 patients with data both before and during dialysis). Carotid waveforms were measured in triplicate within 5min and