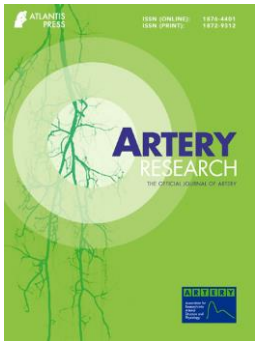

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P11.16: BLOOD PRESSURE VARIABILITY IS ASSOCIATED WITH AORTIC STIFFNESS AND TROPONIN-T IN PATIENTS WITH CKD STAGES 3 AND 4

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Methods: A total of 50 men aged 28 to 50 (mean age: 43 ± 5) years with angiographically proven CAD underwent multislice computed tomography (MSCT) studies. Those with arterial hypertension, diabetes mellitus or marked hypercholesterolemia (LDL cholesterol >4.5 mmol/l) were excluded from the study. Coronary calcification wAS quantified using the Agatston score (CCS). The results were compared with a group of 30 controls without CAD, matched for sex, age, and risk factors.
Results: Calcifications were present in 86% of patients with CAD and in 16.7% of controls (p <0.001). The mean (SD) CCS was 285±314 in the CAD patients versus 31±129 in the controls (p <0.001). Absence of calcium, CCS of 1 to 99 (mild), 100 to 399 (moderate), and ≥400 (severe) was observed in 7 (14%), 16 (32%), 15 (30%), and 12 (24%) of the patients with CAD, and in 25 (84%), 3 (10%), 1 (3%), and 1 (3%) of the patients without CAD, respectively. Extent of coronary calcification in the CAD patients was not related to the severity of CAD.
Conclusion: In young and middle-aged patients with new onset CAD the presence and extent of coronary calcification is significantly greater than in matched controls.

P11.14
INFLUENCE OF SUBCLINICAL THYROID FAILURE ON ARTERIAL STIFFNESS IN WOMEN WITH ARTERIAL HYPERTENSION

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Background: The association between arterial stiffness increasing and mortality in patients with arterial hypertension (AH) is well recognized. There is ongoing debate whether subclinical thyroid failure may exert deleterious effects on the cardiovascular system with the consequences of increased morbidity and mortality. The OBJECTIVE of our study was to examine influence subclinical hypothyroidism (SCH) on arterial stiffness in women with arterial hypertension.
Methods: 40 females with AH (20 pts with normal thyroid function (control) and 20 with SCH underwent brachial-ankle pulse wave velocity (PWVba) measurements for evaluation of arterial stiffness. Thyroid-stimulating hormone (TSH) level was 4.01-10.0 mU/ml in SCH patients. Mean FT4 was respectively 14.8±2.0 and 15.2±2.8 pmol/L in control and SCH group (p=0.298).
Results: Hypothyroid patients demonstrated higher PWVba (15.0±2.4m/s vs 13.3±2.3m/s, p=0.016). There were no differences in age (65.1±6.9 years vs 64.5±6.7 years, p=0.397) and systolic pressure (135.7±19.0 vs 137.2±18.2, p=0.401) between SCH patients and controls.
Conclusions: Subclinical hypothyroidism is associated with changes in arterial stiffness. Significant changes of arterial stiffness were observed in subjects with TSH 4.01-10.0 mU/ml suggesting that even early stage of thyroid failure is associated with increased cardiovascular risk.

P11.15
ANGIOTENSIN CONVERTING ENZYME -2 (ACE-2) POLYMORPHISMS RS4646156 AND RS4646174 ARE ASSOCIATED WITH CENTRAL PULSE PRESSURE, BRAIN NATRIURETIC PEPTIDE AND NYHA CLASSIFICATION IN PATIENTS WITH CHRONIC HEART FAILURE

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The pulse pressure (PP) is an independent predictor of cardiovascular morbidity and mortality. The PP level increases with the age and this increase is due to stiffness of large arteries. Angiotensin I converting enzyme 2 cleaves angiotensin I to angiotensin - (1-7) with vasodilatation and antiproliferative effects. In human medicine, the ACE-2 relation to the pulse pressure has not been studied yet. The aim of the study was to test possible association among phenotypes (central pulse pressure evaluated by invasive method in stable patients with well-preserved systolic function of the left ventricle, BNP as a marker of a severity of the disease and NYHA classification) and genotypes in two polymorphisms of ACE−2 gene.
Methods: A group of 312 patients with chronic heart failure (170 men and 142 women, median age 63 years) was enrolled in the study. The rs4646156 and rs4646174 polymorphisms in ACE-2 gene were detected by Tasman SNP genotyping.
Results: The central pulse pressure was highly significantly correlated with BNP, NT- proBNP and big endothelin levels. We observed significant differences in central pulse pressure among carriers of different genotypes of both ACE-2 polymorphisms (P=0.01 and 0.03, respectively). For the heterozygote genotype AT (rs4646156) a and CG (rs46461745) we report the higher risk for women in all NYHA groups compared to men (P<0.04-0.000001) with average sensitivity of 0.550 and specify of 0.980.
Conclusion: The heterozygote genotypes in ACE-2 polymorphisms are more risky for women with chronic heart failure compared to men.

P11.16
BLOOD PRESSURE VARIABILITY IS ASSOCIATED WITH AORTIC STIFFNESS AND TROPONIN-T IN PATIENTS WITH CKD STAGES 3 AND 4

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Introduction: Clinic blood pressure predicts future cardiovascular risk but variability of systolic blood pressure (SBP) may be closely associated with adverse outcomes. Increased variability of SBP may be due to loss of buffering capacity in the aorta through increased vascular stiffness. This may be important in chronic kidney disease (CKD) where patients have accelerated aortic stiffening and high cardiovascular mortality. However, the relationship between aortic stiffness and BP variability in patients with CKD has not previously been studied.
Methods: 150 patients with CKD stages 3-4 in a prospective study of cardiovascular risk underwent 24-hour ambulatory blood pressure (24h-ABPM) and measurement of aortic pulse wave velocity (aPWV). Serum Troponin-T (TnT) was measured using a high-sensitivity assay.

Subject characteristics (n=150)	
Age (years)	69 ± 11
Male gender (%)	73
Systolic (mmHg)	150 ± 20
Diastolic BP (mmHg)	81 ± 11
Diabetic (%)	22
Cardiovascular disease (%)	39
eGFR (mL/min/1.73m^2)	32 ± 11

Results: Standard deviation of 24h-ABPM SBP was associated with age (rho=0.28,p<0.001), clinic SBP (rho=0.20,p=0.01), heart rate (rho=0.30,p<0.001), aPWV, (rho=0.22, P<0.01) and TnT (rho=0.26,p=0.001). SD 24h-ABPM was higher among diabetics (16*vs*18mmHg, p<0.05) and people with previous cardiovascular disease (15*vs*18mmHg, p=0.001). There was no significant difference in SD of 24h-ABPM SBP between people treated with different antihypertensive drugs or total number of antihypertensives taken. In stepwise multivariable analysis, factors independently associated with SD 24h-ABPM SBP were heart rate, cardiovascular disease and TnT (R^2=0.18,p<0.001).
Conclusion: Aortic stiffness is associated with blood pressure variability. However, may be due to the association of cardiovascular disease with aortic stiffness rather than a causal mechanism.

P11.17
CALCIFICATION OF THE THORACIC AORTA ON CHEST X-RAY − ASSOCIATIONS WITH ABDOMINAL AORTIC CALCIFICATION AND PULSE WAVE VELOCITY IN PATIENTS ON RENAL REPLACEMENT THERAPY

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Background: Abdominal aortic calcification (AAC) on lateral abdominal x-ray and carotid-femoral pulse wave velocity (PWV) are independent predictors of mortality and non-fatal CV events in patients on renal replacement therapy (RRT). Guidelines suggest that the presence of AAC can be used to identify patients at high risk. In this study aortic arch calcification (AoAC)