P2.18: IMPACT OF CARDIOVASCULAR RISK FACTORS ON CAROTID STIFFNESS AND CAROTID INTIMA MEDIA THICKNESS – GENDER DIFFERENCES

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calibrated to mean (MAP) and diastolic pressures (DBP) obtained with a Philips SureSigns monitor on the fistula-free arm. Mean±SD values and coefficient of variation (CV) of repeated measurements are shown below:

- Pre-dialysis CV during dialysis CV
  - Peripheral SBP (mmHg): 139±16; 4% 120±16; 7%
  - Peripheral DBP (mmHg): 74±12; 5% 70±8; 6%
  - Peripheral MAP (mmHg): 99±13; 6% 88±12; 7%
  - Central cSBP (mmHg): 127±20; 3% 117±6; 5%

Estimation of cSBP during dialysis was feasible with Compilor Analyse. Its variability was similar to peripheral BP variability. The wide range of peripheral form factor values suggested that there is a need to improve peripheral BP estimation during dialysis.

P2.18 IMPACT OF CARDIOVASCULAR RISK FACTORS ON CAROTID STIFFNESS AND CAROTID INTIMA MEDIA THICKNESS — GENDER DIFFERENCES

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Background and purpose: Whether the influence of risk factors on carotid stiffness (CS) and carotid intima media thickness (CIMT) is modulated by gender is still unclear. The aim of our study was to examine the association between cardiovascular (CV) risk factors, CS and CIMT in men and women.

Material and methods: 252 subjects (including 132 women), mean age: 55 years, with CV risk factors and without the history of manifest CV disease underwent the examination of CS parameters and CIMT. The following CS parameters: beta stiffness index (beta), Peterson’s elastic modulus (Ep), one-point pulse wave velocity (PWV-beta) and arterial compliance (AC) were measured with the use of the high-resolution echotracking system.

Results: The multivariate analysis revealed that age, diabetes and MAP were independent determinants of CS parameters in both men and women. Pulse pressure (PP) was significantly associated with beta (β coefficient =0.261, p=0.006), Ep (β coefficient =0.426, p=0.001) and PWV-beta (β coefficient =0.283, p=0.007) only in women. Of the risk factors significantly associated with CIMT in the multivariate analysis, age was an independent determinant of CIMT in both sexes, while PP (β coefficient =0.317, p=0.014) and increased waist circumference (β coefficient =0.207, p=0.048) only in women.

Conclusions: The influence of CV risk factors on CS and CIMT is modulated by gender. The impact of the pulsatile component of blood pressure on CS and CIMT and of the increased waist circumference on CIMT seems to be more prominent in women than in men.

P2.19 COMPARISON OF BRACHIAL AND CENTRAL BLOOD Pressures FROM 2 SYMPHOCOR XCEL SYSTEMS EQUIPPED WITH A 2M AND 6M-LONG HOSE

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Conclusions: The influence of CV risk factors on CS and CIMT is modulated by gender. The impact of the pulsatile component of blood pressure on CS and CIMT and of the increased waist circumference on CIMT seems to be more prominent in women than in men.

P2.20 PERIPHERAL ARTERY DISEASE DETECTED BY ANKLE-BRACHIAL INDEX IS ASSOCIATED TO CARDIAC AND CAROTID ABNORMALITIES IN PATIENTS WITH ARTERIAL HYPERTENSION AND DIABETES

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Background: Exaggerated blood pressure (BP) responses to sub-maximal exercise independently predict cardiovascular (CV) events, mortality and incidence of diabetes. The aim of this study was to explore relationships between exercise BP, left-ventricular (LV) structure and function and aerobic fitness as potential mechanisms underlying the CV risk associated with sub-maximal exercise BP.

Methods: 149 participants aged 40±2 years, 45% male completed a staged cycle test to estimate physical work capacity (aerobic fitness; PWCT170) with concomitant BP measured each two minutes. 2D echocardiography was used to quantify LV mass (obtained from 2D-guided M-mode echo), and LV function (longitudinal strain, haemodynamics).

Results: Early-stage exercise systolic BP was associated with aerobic fitness and LV mass index (r=0.22, and 0.24, p<0.05) and was greater in those performing high stage-relative work (high-fit) compared with low stage-