P3.13: ARTERIAL STIFFNESS ASSESSED BY ULTRAFAST IMAGING IN HEALTHY SUBJECTS

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Abstracts

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Conclusions: Our findings suggest that urinary L-FABP might be independently associated with aortic stiffness and adiponectin in individuals with CAD.

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Aim: To assess normal values on the common artery by using new methodology using shear wave methods in healthy subjects.

Methods: Healthy subjects underwent aortic stiffness by using shear wave echography (Aixplorer) at the carotid artery. All subjects were free from cardiovascular disease and medication. PWV at the beginning of systole (BS) and the end systolic (ES) of the cardiac cycle.

Results: 32 healthy subjects (16 male and 16 female) were included. The mean age was 41.0 (23 to 61). BS PWV 4.35/0.32 (3.18 to 5.37) and ES PWV was 5.96/0.45 (4.58 to 9.8) m/s.

Both ES PWV and BS PWV have high correlation with age (r2: 0.64 and 0.58 respectively, p < 0.0001).

Conclusion: Aortic stiffness assessed by ultrafast imaging is a promising method for assessment of arterial stiffness, which can potentially be clinically useful.

P3.14 ASSOCIATION OF CAROTID INTIMA-MEDIA THICKNESS, ENDOTHELIAL FUNCTION AND AORTIC STIFFNESS WITH CARDIOVASCULAR EVENTS IN METABOLIC SYNDROME PATIENTS

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Objective: The objective of this study was to assess predictive value of various arterial markers for cardiovascular (CV) events in patients with metabolic syndrome (MS).

Design and methods: A follow-up study enrolled 2728 (53.95 ± 6.18 years old, 63% women) MS patients without overt CV disease. Patients were followed for 3.9 ± 1.7 years for CV events. Various CV risk factors and arterial markers, such as brachial flow-mediated dilatation (FMD), carotid intima-media thickness (cIMT), carotid stiffness index (CSI), aortic pulse wave velocity (aPWV) and cardio-ankle vascular index (CAVI) were assessed.

Results: Over the follow-up period, 83 (3%) patients had at least one CV event. In a multivariate stepwise Cox proportional hazard regression analysis, an increase in aPWV [HR 1.21 (1.04-1.4), p = 0.016] and cIMT [HR 1.003 (1.001-1.003), p = 0.036] and decrease in FMD [HR 0.30 (0.16-0.56), p < 0.001] was independently associated with the occurrence of the CV event. In a two-level survival trees analysis we established that patients with cIMT > 0.79 cm had higher CV risk and their prognosis was further compromised with an FMD < 0.23 mm, whereas in patients with cIMT < 0.79 cm, aPWV but not FMD was of greater predictive value. The lowest Kaplan-Meier cumulative proportion surviving was observed in patients with cIMT > 0.79 cm and aPWV values above the cut-off point 10.5 m/s (p < 0.001).

Conclusions: In the middle-aged patients with MS and increased cIMT, aPWV was strongest independent CV event predictor, whereas in patients with relatively low cIMT values, CV risk was associated primarily with endothelial dysfunction.

P3.15 CARDIAC PERFORMANCE VASCULAR PHYSIOLOGY AND ERECTILE STATUS; A QUESTION OF A HEALTHY DIET

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Purpose: The Mediterranean diet (Med-Diet) assists cardiovascular disease prevention. Erectile dysfunction (ED) reflects functional damage of the small peripheral vessels. Our aim is to investigate whether left ventricular (LV)