P1.27: INTERRELATIONSHIPS OF MONOCYTE COUNT WITH CAROTID INTIMA-MEDIA THICKNESS, AORTIC STIFFNESS AND PENILE DOPPLER FINDINGS, IN PATIENTS WITH VASCULOGENIC ERECTILE DYSFUNCTION

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adjuncts, excepted on BP, HR for all-cause mortality risk associated with PWV was 1.12 (1.03-1.22), but after adjustment on all variables, relationship was no longer significant: HR = 1.08 (0.96-1.18). Before 60 years, after adjustments, PWV-related risk was 1.09 (0.95-1.24), (NS), but it reached 1.22 (1.08-1.38), p<0.02, in patients >60 years.

Conclusion: In a low to moderate risk population, aortic PWV was significantly and independently associated with all-cause mortality only among subjects after 60 years. In such population, the direct impact of BP on aortic stiffness overcomes the intrinsic stiffness alterations which are linked to all-cause mortality, at least in young, low risk, subjects.

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P1.25

ARTERIAL PROPERTIES IN RELATION TO GENETIC VARIATIONS IN THE ADDUCIN SUBUNITS IN A WHITE POPULATION

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Background: Adducin is a membrane skeleton protein, which consists either of α- or β- or α- and γ-subunits. We investigated whether arterial characteristics might be related to the genes encoding ADD1 (Gly460Trp), ADD2 (C1797T) and ADD3 (A386G).

Methods: We randomly recruited 1126 Flemish subjects (mean age, 43.8 years; 50.3% women). Using a wall-tracking ultrasound system, we measured PWV and aortic stiffness overcomes the intrinsic stiffness alterations which are linked to all-cause mortality, at least in young, low risk, subjects.

Results: PWV was 1.12 (1.03-1.22), but after adjustment on all variables, relationship was no longer significant: HR = 1.08 (0.96-1.18). Before 60 years, after adjustments, PWV-related risk was 1.09 (0.95-1.24), (NS), but it reached 1.22 (1.08-1.38), p<0.02, in patients >60 years.

Conclusion: In a low to moderate risk population, aortic PWV was significantly and independently associated with all-cause mortality only among subjects after 60 years. In such population, the direct impact of BP on aortic stiffness overcomes the intrinsic stiffness alterations which are linked to all-cause mortality, at least in young, low risk, subjects.

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P1.27

INTERRELATIONSHIPS OF MONOCYTE COUNT WITH CAROTID INTIMA-MEDIA THICKNESS, AORTIC STIFFNESS AND PENILE DOPPLER FINDINGS, IN PATIENTS WITH VASCULOCENIC ERECTILE DYSFUNCTION

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Background: Erectile dysfunction (ED) has been associated with both systemic inflammation and generalized vascular disease. Monocyte count (MNC) represents a sensitive marker of inflammatory activity in atherosclerosis. We examined the possible associations between MNC, penile vascular damage and early atherosclerosis.

Methods: 145 consecutive ED patients were divided into three groups according to pharmacologically stimulated peak systolic velocity (PSV) values of cavernous arteries: Group A (venous occlusive disease), Group B (mild arterial insufficiency) and Group C (severe arterial insufficiency, PSV<25 cm/s). PSV shows the greatest flow velocity detectable in an artery throughout the systole. Ultrasound-determined intima media thickness (IMT) of carotid arteries and carotid-femoral pulse wave velocity (PWV) as an index of aortic stiffness were used to assess subclinical atherosclerosis.

Results: Patients with severe arterial insufficiency (n=44) compared to subjects in group B (n=41) and A (n=60) had increased IMT (r=0.16; P<0.05) and PSV (r=0.23, P<0.05) lower in 209 offspring, who were ADD1 GlyGly homozygotes (Z=0.14/0.06 mm; P=0.10). They also exhibited higher MNC, compared to those of groups A and B (0.47 vs 0.44 vs 0.39 x 10^9/L, P<0.05), whereas there were no significant differences between the 3 groups as regards white cell counts. Furthermore, MNC remained significantly different between groups after adjustment for CRP, fibrinogen and risk factors, (P<0.05). MNC correlated with IMT (r=0.23, P<0.05), PWV (r=0.27, P<0.01) and PSV (r=0.26, P<0.01).

Conclusions: Our study shows that there is an augmentation in MNC throughout increasing penile vascular damage and subclinical atherosclerosis. These findings may reflect the potential role of MNC as a marker of early atherosclerosis in ED patients.

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P1.28

INFLUENCE OF AGE ON CAROTID ENDOTHELIAL FUNCTION AS DETERMINED BY HYPERCAPNIA INDUCED VASODILATATION

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Background: An increase in blood velocity-associated shear stress results in release of endothelial factors, causing endothelium-dependent flow mediated vasodilatation (FMD). Hypercapnia strongly stimulates cerebral blood flow velocity in the common carotid artery (CCA).

Objective: Test the reliability of hypercapnia induced FMD of the CCA and evaluate the stimulus response relationship (changes in blood velocity and diameter) for different age populations.

Methods: Hypercapnia was induced with inhalation of a gas mixture of 6.8% CO2, 74.5%N2, and 18.6% O2 for a period of 2 minutes in 19 healthy young