P1.04: PREDICTORS OF VASCULAR AGE IN A POPULATION WITH CARDIOVASCULAR RISK FACTORS


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using Sphygmocor Px device, calculated pulse wave velocity (PWV) and determined erythrocyte NKA activity before and after addition of spironolactone (50 mg/day) to the therapy.

In rat aortic explants, treatment with MBG resulted in a two-fold rise in the levels of collagen-1 and a marked reduction in the sensitivity to the vasorelaxant effect of sodium nitroprusside following endothelin-1-induced constriction (EC_{50} \text{ umol/L} = 1.98 \text{ umol/L in vehicle-treated rings; } P<0.01). Canrenone blocked effects of MBG on collagen synthesis and restored sensitivity of vascular rings to sodium nitroprusside (EC_{50} = 1.7 \text{ umol/L}).

Patients with RH exhibited elevated plasma MBG concentration (0.18±0.02 vs. 0.37±0.05 nmol/L; P=0.01) and reduced NKA activity (1.9±0.15 vs 2.8±0.10 nmol/Pi/ml/hr; P<0.01) vs. 16 healthy controls. Six-month administration of spironolactone was associated with a decrease in PWV (P<0.01) and systolic/diastolic BP (12.3±7.2/7.2 mmHg; P<0.01), and restoration of NKA activity (1.9±0.15 to 2.3±0.11 nmol/Pi/ml/hr; P<0.01). These results demonstrate that Cs-induced vascular fibrosis is a likely target for aldosterone antagonists.

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**Background:** We aimed at evaluating determinants of the vascular age.

**Material and Methods:** 187 subjects [86 M and 101 W] with CV risk factors were classified into three categories of the Framingham CV Risk (FR). Their mean carotid intima media thickness (CIMT) and arterial stiffness (a.s.) parameters were assessed. The VA was calculated from the CIMT according to the nomograms from the ARIC Study. The subjects were divided into two groups: 1. VA exceeds the chronological age (CA) for at least 5 years and 2 – others.

**Results:** The VA > the CA in M and W (M: 68.5 y vs 52.4 y, p = 0.001; W: 67.1 vs 55.0, p < 0.001). No relationship between the FR category and classification to group 1 or 2 was observed. In both sexes diabetes mellitus (DM) (M: OR 3.10, 95% CI 1.28 – 7.50, p < 0.05; W: OR 4.40, 95%CI 1.85 – 10.47, p = 0.001) and additionally in W BMI >25 kg/m2 (OR 5.87, 95%CI 2.15 – 15.99, p = 0.009) differentiated group 1 from group 2. Increased body fat composition was proved in M and W BMI >25 kg/m2 (OR 5.87, 95%CI 2.15 – 15.99, p = 0.009) and additionally in W BMI >25 kg/m2 (OR 5.87, 95%CI 2.15 – 15.99, p = 0.009). 152 Abstracts