P7.01: CAROTID ATHEROSCLEROSIS AND ENDOTHELIAL DISFUNCTION IN YOUNG AND MIDDLE-AGED MEN WITH CORONARY ARTERY DISEASE

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Background: Fibrillin-1 is an important constituent of the vascular wall and earlier studies have indicated an effect of the fibrillin-1 2-3 genotype on blood pressure as well as aortic stiffness. The aim was to determine if the Fibrillin-1 2-3 genotype is associated with increased cardiovascular morbidity/mortality in middle-aged individuals.

Method: The fibrillin-1 genotype was characterized by PCR in 5765 individuals (2274 men, 3491 women 45-69 yrs) recruited from the Cardiovascular Cohort in Malmö Diet and Cancer-study. The intima media thickness (IMT) of the common carotid artery (CCA) was visualised by B-mode ultrasound. The follow up on the number of cardiovascular events (myocardial infarction and stroke) as well as all cause mortality was monitored during 1991 to 2001.

Results: The most common genotypes were 2-2, 2-3 and 3-4 which accounted for 92.2% (n = 5317) of the individuals. There were no differences between the three genotypes regarding age, blood pressures, smoking, glucose, lipids, CCA diameter and IMT. Regarding the occurrence of plaque in the CCA the men with the 2-3 genotype had more plaque than the 2-2 and 2-4 genotypes, (54% vs 46% and 50%, p = 0.007). The follow up (mean 8.55 yrs) of cardiovascular events and mortality did however not differ between the genotypes.

Conclusions: The increased plaque occurrence in the carotid artery of middle-aged men with fibrillin-1 2-3 genotype indicates a pathologic arterial wall remodelling with a more pronounced atherosclerotic burden. The effect of the 2-3 genotype on cardiovascular events and mortality seems however to be minor.

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CAROTID ATHEROSCLEROSIS AND ENDOTHELIAL DISFUNCTION IN YOUNG AND MIDDLE-AGED MEN WITH CORONARY ARTERY DISEASE

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Objective: To determine whether the structural status of carotid arteries and abnormal flow-mediated dilatation (FMD) in the brachial artery identify young and middle-aged men with coronary artery disease (CAD).

Methods: A total of 78 men aged 28 to 50 (mean 43 ± 5) years underwent carotid ultrasound and endothelial function measurements. Angiographically documented CAD was present in 49 patients. Those with arterial hypertension, diabetes mellitus or marked hypercholesterolemia (level of LDL cholesterol >4.9 mmol/l) were excluded from the study.

Results: Patients with CAD more often were smokers, had a history of myocardial infarction and stroke as well as all cause mortality was monitored during 1991 to 2001. Results: The most common genotypes were 2-2, 2-3 and 3-4 which accounted for 92.2% (n = 5317) of the individuals. There were no differences between the three genotypes regarding age, blood pressures, smoking, glucose, lipids, CCA diameter and IMT.

Conclusions: The increased plaque occurrence in the carotid artery of middle-aged men with fibrillin-1 2-3 genotype indicates a pathologic arterial wall remodelling with a more pronounced atherosclerotic burden. The effect of the 2-3 genotype on cardiovascular events mortality seems however to be minor.