P4.18: OSTEOPROTEGERIN AND ARTERIAL STIFFNESS IN POSTMENOPAUSAL WOMEN

A. Albu, D. Fodor, C. Bondor, L. Poanta, M. Porojan


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P4.17
INFLUENCE OF ESTIMATED WALL SHEAR RATE INDICES ON CAROTID ARTERY INTIMA-MEDIA THICKNESS AND INTIMA-MEDIA COMPLEX ECHOCOGENICITY
Peninsula Medical School, Peninsula NIHR Clinical Research Facility, University of Exeter, Exeter, United Kingdom

Introduction: Grey scale median of the carotid artery intima-media complex (IM-GSM) is a recently introduced measurement to characterise the arterial wall. Wall shear stress is thought to influence intima-media thickness (IMT) and to play a major role in the development of atherosclerosis. However, the relationship between wall shear stress and IM-GSM is not well understood. This study examined the relationship between estimated wall shear rate (WSR) indices and IMT as well as estimated WSR indices and IM-GSM.

Methods: Data from 156 middle-aged and older individuals (66.1 ± 9.5yrs, 58F) were included in this analysis. Common carotid artery diameter, IMT, and IM-GSM were included in this analysis. Common carotid artery diameter, IMT, and IM-GSM were analyzed using a semi-automated edge-detection programme. Estimates of WSR were calculated: peak, mean and diastolic WSR. IMT and IM-GSM were included in this analysis.

Results: A linear relationship was found between WSR indices and IMT as well as IM-GSM. However, the relationship between wall shear stress and IM-GSM is still unclear.

Conclusion: The results support the relationship between serum OPT and arterial stiffness in postmenopausal women, independent of the traditional cardiovascular risk factors and inflammation. At the same time, MGP was not found to be a predictor of arterial stiffness.

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OSTEOPROTEGERIN AND ARTERIAL STIFFNESS IN POSTMENOPOAUSAL WOMEN
A. Albu, D. Fodor, C. Bondor, L. Poanta, M. Porojan
University of Medicine and Pharmacy, Cluj-Napoca, Romania

Background: Many recent data support the hypothesis that circulating osteoprotegerin (OPT) levels are associated with arterial calcification and may serve as a potential predictor of cardiovascular disease and mortality. Matrix Gla Protein (MGP) is considered an inhibitor of vascular calcification. However, the role of these molecules in the arterial wall is still unclear.

Arterial stiffness increases in postmenopausal women. The aim of our study was to determine the relation between circulating OPT and MGP and vascular parameters of arterial stiffness in postmenopausal women.

Materials and Methods: One hundred forty-four postmenopausal women, aged (61.4 ± 10.6 years) were included in the study. PWV was measured using an oscillometric device. OPT, MGP, C-reactive protein and parameters of lipid and glucose metabolism were also determined.

Results: OPT correlated with aortic PWV (r = 0.32, p = 0.006), and C-reactive protein (r = 0.37, p = 0.002). In multiple regression models, after adjustment for potential confounders, OPT was independently associated with aortic PWV. No correlation was found between MGP and aortic PWV. There were 61% hypertensives, 36% patients with diabetes, 35.4% with hyperlipemia and 41.6% with obesity or overweight, in this study.

Conclusion: These results support the relationship between serum OPT and arterial stiffness in postmenopausal women, independent of the traditional cardiovascular risk factors and inflammation. At the same time, MGP was not found to be a predictor of arterial stiffness.

P4.20
ASSOCIATION OF A SINGLE NUCLEOTIDE POLYMORPHISM IN CYP2C8 WITH MYOCARDIAL INFARCTION IN BULGARIAN POPULATION
G. A. Atanasova 1, R. T. Tzveva 2, M. T. Tzkeva, assoc.prof 3, R. K. Kaneva, assoc.prof 4, V. M. Mitev 5
1Galva Naydenova, Pleven, Bulgaria
2Renil Tzvevoa, Sofia, Bulgaria
3Maria Tzkeva, Pleven, Bulgaria
4Radka Kaneva, Sofia, Bulgaria
5Vanky Mitev, Sofia, Bulgaria

Cytochrome P450 2C8 is a polymorphic enzyme responsible for the biosynthesis of vasoactive substances from arachidonic acid. Inter-individual differences in the action of these substances might be important in the pathogenesis of cardiovascular diseases such as acute myocardial infarction (AMI). In the present study we analyzed the association of a genetic variant in CYP2C8 and the morbidity of AMI in Bulgarian population.

The study included 99 AMI patients and 370 control subjects. To determine the genotypes of the samples real time PCR with predesigned TaqMan SNP Genotyping Assays (Applied Biosystem) was used.