Abstract: **P115**

**Vascular wall stiffness parameters as risk factors of cerebrovascular complications in hypertensive patients with abdominal obesity**

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**Topic(s):**
Basic Science - Cardiac Diseases: Biomarkers

**Citation:**
Cardiovascular Research (2018) 114 (Supplement 1), S26

Introduction: several of major studies has shown that increasing the stiffness of the arteries is an independent predictor of cerebrovascular disease and mortality. The vascular inflammatory reaction are of great importance in the process of vascular remodeling.

Objective: To study structural parameters of vessel wall, lipid and inflammatory biochemical parameters in patients with arterial hypertensiös (AH) and abdominal obesity (AO).

Design and methods: 108 patients (mean age 44.81±0.95) were randomized into 2 groups. The Gr.1 included 70 subjects with AH and AO. The Gr.2 included 38 subjects without AO. The parameters of sphygmography, blood pressure monitoring; biochemical parameters (total cholesterol, LDL-chol, HDL-chol, triglycerides, malonic dialdehyde and inflammatory markers - homocysteine and hs-CRP were estimated.

Results: In Gr.1 there were registered: significant increase in sphygmography indexis (pulse wave velocity PWV, cardio-ankle vascular index), in mean 24-hour and mean daytime systolic BP and variability, in total cholesterol, LDL-chol, triglyceride and MD levels, homocysteine and hs-CRP level, compared to the patients in group 2. In Gr.1 there were registered positive correlation between inflammatory and lipid markers with parameters of sphygmography and blood pressure monitoring. It was shown that with an increase in total cholesterol level >5.0 mmol/l, the risk of high rate PWV in patients with AH and AO increased by 15 times.

Conclusion: The revealed correlations of inflammatory and lipid markers with indices of vascular wall rigidity once again exhibit a high risk of cerebrovascular complications in patients with AH and metabolic disorders.