



Conference Abstract

P.24 Factors Associated with Premature Vascular Aging in Patients with Arterial Hypertension

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Keywords

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ABSTRACT

Objectives: Identification of factors associated with premature vascular aging in patients with arterial hypertension (AH).

Methods: The study included 61 patients (29 men, 32 women) with 1–2 grade AH without cardiovascular complications, aged 40 to 60 years, of which 28 (45.9%) had type 2 diabetes. The duration of AH was 5.0 [2.0; 10.0] years, type 2 diabetes - 2.0 [1.0; 4.0] years. The assessment of vascular stiffness using cardio-ankle vascular index (CAVI) and vascular age (VA) was performed by volumetric sphygmography (VaSera-1500). All patients were divided into 2 groups: with normal VA (the passport age corresponds to the VA, $n = 35$) and premature vascular aging (the VA is higher than the passport age, $n = 26$).

Results: There were no significant differences in gender, smoking, dyslipidemia, and the presence and duration of type 2 diabetes in the comparison groups. Significantly higher values of blood pressure (BP) were observed in the group of patients with premature vascular aging - $153.7 \pm 26.2/95.3 \pm 13.2$ versus $137.9 \pm 18.6/88.4 \pm 13.3$ mm Hg, higher duration of AH 10.0 [4.0; 13.0] vs. 3.0 [1.0; 8.0] years, higher blood urea level 5.7 [5.3; 6.8] vs. 4.5 [3.8; 5.8] mmol/l, increased CAVI average values on the right and on the left 8.8 [8.4; 9.4] vs. 7.4 [6.7; 7.9], intima-media thickness (IMT) of CCA (0.92 ± 0.13 vs. 0.80 ± 0.09 mm) and LV mass index (LVMI), 96.1 ± 21.8 vs. 86.1 ± 20.7 g/m².

Conclusion: Premature vascular aging in patients with AH was associated with the degree and duration of hypertension, increased IMT, vascular stiffness [1], blood urea levels and LVMI.

REFERENCE

- [1] Nilsson PM. Early vascular ageing as a new model to understand hypertension and arterial disease. *Cardiovasc Endocrinol* 2016;5:133–6.

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