

Conclusion: The findings of this study suggest that both Aml and Val have positive or neutral effects on hsCRP, TNF- α , IL-6 and HDL-C. It is previously reported that Aml/Val combination provides an additive effect vs. Aml or Val monotherapy on insulin resistance which is one of the major risk factors in cardiovascular continuum. Therefore Aml/Val combination may produce an additional effect on hsCRP, TNF- α , IL-6 and HDL-C too. It is suggested that the effects of Aml and Val combination on inflammatory and lipid parameters are investigated in future studies.

PP.01.18 ERECTILE FUNCTION AND ATHEROMATOSIS OF CAROTID ARTERIES OF HYPERTENSIVE PATIENTS

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Objective: To correlate the erectile function with the atheromatosis of carotid arteries of hypertensive males, as a parallel expression of damage of cardiovascular system.

Methods: We monitored 51 treated and untreated male hypertensive patients, mean age 51.6 years, without apparent heart disease and clinical symptoms. All patients underwent carotid ultrasound and categorized into Group A, ($N = 19$: without carotid wall lesions intima-media thickness (IMT) < 0.9 mm) and Group B ($N = 32$: with carotid IMT > 0.9 mm or existence of atheromatous plaque. Group C ($N = 26$). All patients filled the erectile function (EF) questionnaire (IIEF-International Index of Erectile Function). The answers were evaluated according to the proportional gradation (highest level 30). The differences in EF levels among the groups according the existence or not atheromatosis of carotid arteries, were estimated using the one way ANOVA comparison Method, as well as between treated and untreated hypertensives (Group C and Group D respectively).

	MA (years)	EF	BMI	S/DBPo
Group A ($N = 19$)	51.6	23.3	26.4	142/89
Group B ($N = 32$)	61.4	18.7	27.8	139/87
p	0.006	0.049	NS	NS
Group C ($N = 26$)	64.6	17.2	27.8	134/82
Group D ($N = 25$)	50.7	23.8	26.8	147/93
p	0.000	NS	0.003	0.003/0.000

MA = age, EF = erectile function gradation, BMI = body mass index, S/DBPo = systolic/diastolic office blood pressure.

In regression correlation analysis between age and IIEF, age played a significant role in groups A, B, D ($p = 0.000$, $p = 0.023$, $p = 0.003$ respectively) but not in group C ($p = 0.120$).

Conclusion: In hypertensive males existence of atheromatous damage of carotid arteries goes in parallel with the decrease of erectile function, something that exists also in treated patients of older age, in a degree, while in treated hypertensive patients age does not appear to influence EF.

PP.01.19 EFFECTS AND MECHANISM OF PEROXISOME PROLIFERATOR ACTIVATED RECEPTOR DELTA ON THE MCP-1 MRNA EXPRESSION INDUCED BY HOMOCYSTEINE IN CULTURED HUMAN ENDOTHELIAL CELLS

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Objective: To investigate the effects and mechanism of peroxisome proliferator activated receptor δ (PPAR δ) on atherosclerosis.

Methods: Collagenase digestion was used to isolate endothelial cells from human umbilical vein, and the cells was cultured *in vitro*. The cells were pre-incubated with 1 μ M GW0742, 10 μ M PDTC or 10 μ M DPI for 30 min, and then incubated with 1.000 μ M Hcy for 24 h. RT-PCR was used to examine the expression of MCP-1, PPAR δ mRNA; Western-blotting was used to detect the level of PPAR δ protein; DCFH-DA was added to monitor intracellular reactive oxygen species (ROS) production.

Results: Compared with control group, Hcy promoted the expression of MCP-1 mRNA and decreased the expression of PPAR δ mRNA in HUVECs; GW0742 decreased the expression of MCP-1 mRNA compared with the Hcy group; Hcy remarkably increased production of ROS compared with the control group; The Hcy-induced production of ROS was also significantly attenuated by GW0742.

Conclusion: The activation of PPAR δ decreased the expression of MCP-1 induced by Hcy, and may via suppressing Hcy-induced production of ROS.

PP.01.20 REMODELING COMMON CAROTID ARTERIES IN HYPERTENSIVE PATIENTS WITH OBESITY

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The aim of the work was to study the state of the common carotid arteries to determine the clinical course of disease in hypertensive patients with obesity.

Materials and Methods: 102 patients on average age 54.9 ± 9.94 with hypertension and obesity. Control group consisted of 21 healthy men aged on average 53.40 ± 11.80 . The patients were divided into two groups depend on rate of waist circumference (WC). According to the criteria of the IDF, 2005 was diagnosed abdominal obesity. Common carotid artery far-wall intima-media thickness (IMT) was measured duplex scanning at 7.5 MHz SIEMENS G50 (USA) on a generally recognized technique. According to the recommendations of the experts of the European Society of hypertension (2009) evaluated the IMT.

Results: Abdominal obesity was diagnosed in 82 hypertensive patients – 1gr. WC averaged 103.07 ± 12.52 m. 2 group consisted of 20 hypertensive patients without abdominal. WS average of 80.00 ± 9.52 m. WS in control group was 82.80 ± 6.50 m. In the study of the common carotid artery there was a significant increase in IMT in hypertensive patients with abdominal obesity. The average of the IMT of common carotid artery in 1 gr. – 0.61 ± 0.34 mm was significantly greater as compared with the IMT in patients 2 gr. – 0.47 ± 0.34 mm and control – 0.24 ± 0.14 mm, $p < 0.05$. It should be noted that in 22 (26.83%) of hypertensive patients with abdominal obesity showed an increased IMT. In hypertensive patients with abdominal obesity revealed atherosclerotic plaques – 5 (4.9%) recorded significantly greater frequency of stenosis and deformation of the common carotid artery. In 1 gr. average SBP positively correlated with IMT $R = 0.26$, $p < 0.04$.

Conclusion: This investigation revealed that increasing the thickness of the intima-media, change the vascular lumen, the presence of atherosclerotic plaque, stenosis depends from abdominal obesity and degree of BP.

PP.01.21 THE VALUE OF VARIOUS INDICATORS AND INTEGRAL INDICES OF THE TREADMILL TEST FOR ASSESSMENT OF THE CARDIOVASCULAR RISK IN PATIENTS WITH CORONARY ARTERY DISEASE

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Objective: To compare the value of indicators and indices of the treadmill test (TT) to assess the cardiovascular risk in patients with stable coronary artery disease.

Design and Method: There have been compiled database of patients who (1) was carried out for diagnostic coronary angiography and TT; (2) was hospitalized during 01.01.2004. to 31.12.2007; (3) lived in Moscow region. Medical data, including TT and rates of Duke index (DTS) and index of the State Research Center for Preventive Medicine (ICPM) were entered in database. $DTS = T - (5 \times ST) - (4 \times \text{angina})$, ICPM = $T + HR/10 - \text{angina} \times 5$, T – duration of the TT, min; ST – the maximum STdeviation, mm; HR – maximum heart rate (HR), min; angina – angina severity (0/1/2/3). In 2009–2011, the patients/relatives were contacted by phone in order to assess cardiovascular events. The primary endpoint was death from all causes. Secondary endpoint included death from all causes, nonfatal cardiovascular events, revascularization.

Results: The analysis included 260 patients (204 men), mean age was 57.5 ± 0.6 . The follow-up for the primary end point was 4.0 years, for the secondary end point – 3.2. The incidence of the primary endpoint was observed in 10 (2.7%). The incidence of the secondary end point was 71 (32.0%). In patients with ST-segment depression more 1 mm the primary endpoint was observed in 4 times ($p = 0.02$) higher. Significant indicators for the primary endpoint: (1) duration of the TT: $RR = 0.775$ ($p = 0.01$), (2) $ST2/ST1$: $RR = 0.457$ ($p = 0.01$), (3) HR_{max}/HR_{min} : $RR = 0.95$ ($p = 0.03$), MET: 0.686 ($p = 0.02$), 4) depression ST more 1 mm: $RR = 5.1$ ($p = 0.04$); for the secondary end point: (1) the duration of the TT: $RR = 0.923$ ($p = 0.01$), (2) maximum HR: $RR = 0.987$ ($p = 0.03$), (3) HR_{max}/HR_{min} : $RR = 0.986$ ($p = 0.04$), MET: $RR = 0.856$ ($p = 0.01$). DTS showed sig-