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**Methods:** We examined 19 patients with mild or moderate hypertension 1 month after their recovery from moderate COVID-19 (11m/8f, aged 45.4±9.0 years, without diabetes mellitus, non-smokers). 11 patients with hypertension had obesity (BMI≥30 kg/m<sup>2</sup>) and 8 had normal body weight (BMI≤25 kg/m<sup>2</sup>). We compared the endothelium-dependent flow-mediated dilatation (FMD) of the brachial artery in response to reactive hyperemia in the recovered group and in 20 age- and gender-matched healthy controls without cardiovascular risk factors.

**Results:** The FMD in 19 pts with hypertension was significantly lower than in healthy controls (5.3±3.4% vs 9.5±3.9%, p<0.05). FMD in pts with hypertension and obesity was significantly lower than in patients with hypertension and normal body weight (3.9±1.9% vs 7.3±3.7%, p<0.05) and in healthy controls (p<0.05). BMI, SBP, DBP, TC and TG levels were significantly higher in patients with hypertension and obesity than in participants with hypertension and normal body weight: 34.2±3.9 vs 22.7±2.8 kg/m<sup>2</sup>, 141.3±10 vs 123.5±17.3 mm Hg, 91.6±10.1 vs 79.4±12.8 mm Hg, 6.75±1.88 vs 5.12±0.82 mmol/l and TG 3.75±3.0 vs 1.18±0.24 mmol/l (all p-values <0.05).

**Conclusions:** In conclusion, moderate COVID-19 led to a disruption of the functional state of the endothelium in patients with hypertension, which was more pronounced in patients with obesity.

**EP565 / #876, TOPIC: ASA04 - CLINICAL VASCULAR DISEASE / ASA04-02 ENDOTHELIAL DYSFUNCTION; CLINICAL ASSESSMENT, POSTER VIEWING SESSION.**

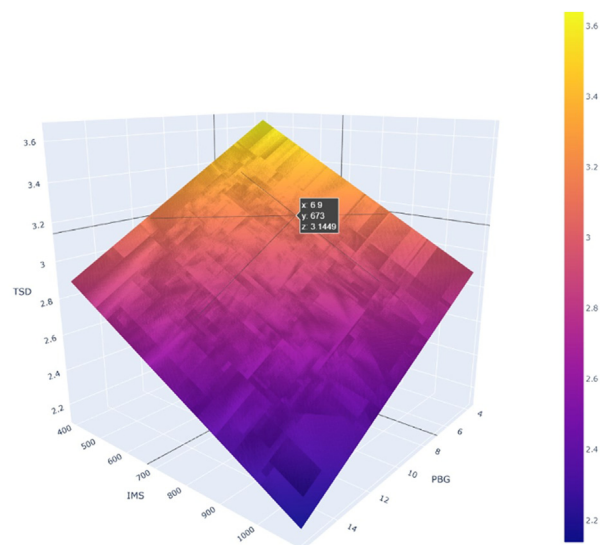
**VASCULAR ENDOTHELIAL FUNCTION AS AN EARLY SIGN OF VASCULAR AGEING IN PATIENTS WITH METABOLIC SYNDROME**

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**Background and Aims :** Objective is to evaluate signs of early vascular ageing, namely arterial stiffness, intima-media thickness and endothelial dysfunction, among people with metabolic syndrome by comparing the results of pulse wave velocity (PWV), intima-media thickness (IMT) and flow-mediated dilation FMD) techniques, respectively. Also, we aim to examine the correlation between these methods as well as relationship with cardiovascular risk factors.

**Methods:** The data of 4927 patients who were admitted to the Centre of Cardiology and Angiology at Vilnius University Hospital Santaros Klinikos was analysed. The patient cohort consisted of 2114 males and 2813 females aged 40-55 and 50-65, respectively. We evaluated the results of PWV, IMT and FMD techniques and their relationship with 6 cardiovascular risk factors.

**Results:** Endothelial dysfunction is more common among men than women (p<0,001). Abnormal values of FMD, PWV and IMT are associated with significantly higher frequency of atherosclerotic plaques in common carotid artery (p=0,001, p=0,01, p<0,001, respectively). There is a positive statistically significant correlation between total number of cardiovascular risk factors and both the extent of arterial stiffness (p<0,001) and intima-media thickness (p<0,001). We also found that intima-media thickness is correlated with arterial stiffness (p=0,001), while values obtained by both PWV (p=0,001) and IMT (p=0,002) methods are negatively linked with results of FMD.



**Correlation between FMD, IMT and PWV values.**

TSD – flow mediated dilation (%), PWV – pulse wave velocity (m/s), IMS – intima-media thickness (µm).

**Conclusions:** Endothelial function is less impaired in women than in men. However, the latter were found to be associated with less stiffened arteries, lower prevalence of atherosclerotic plaques and thinner intima-media layers. There is a significant correlation between measures of endothelial dysfunction, arterial stiffness and intima-media thickness.

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**PHYSICAL ACTIVITY AND CARDIAC ARRHYTHMIAS IN PATIENTS WITH INOCA ON THE MANAGEMENT WITH RANOLAZINE**

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**Background and Aims :** The aim of the study was to evaluate the effect of basic ranolazine therapy in INOCA patients on exercise stress test and Holter ECG monitoring.

**Methods:** 53 patients with INOCA were examined, including 17 men (32.7%) and 35 (67.3%) women, the average age was 57 (± 9.68) years. In addition to physical and laboratory examination, exercise stress test, Holter ECG monitoring were included in the examination of patients. Patients were divided into 2 groups: group I - patients who in addition to standard therapy received ranolazine at a dose of 1000 mg twice a day for 6 months, and group II patients with standard antianginal therapy. The examination was performed at 6-month follow-up.

**Results:** Before treatment in group I, the duration of the exercise test was 356.51± 180.24s, and after treatment 414.32± 142.10s (p = 0.03). In group II, the duration of the test before treatment was 361.4± 160.24s, and after 380.5± 152.2s (p= 0.15). The duration of the test differed significantly in group I after treatment of patients from group II after treatment of patients with a standard treatment (p= 0.04). In group I the frequency of ventricular arrhythmias: before treatment n=1142[30; 2012], after treatment n=729[23; 1420], in group II a significant difference between the number of extrasystoles before and after treatment not detected(n=1026[17; 1920], n=985[15; 1680], respectively) p= 0.18.