

Aim: Tumor necrosis factor-like weak inducer of apoptosis (TWEAK) is a cytokine processed by proprotein convertase furin and released into extracellular space as a shorter bioactive fragment called soluble TWEAK (sTWEAK). CD163 has been identified as a new potential scavenger receptor for TWEAK. Studies in last years suggests that sTWEAK and sCD163 levels could be the potential biomarkers of some diseases like atherosclerosis. Behcet's disease (BD) is a chronic and relapsing multisystemic inflammatory disorder with unknown etiology. Systemic vasculitis is the main pathology observed in BD. The aim of the study to examine the sTWEAK and sCD163 concentrations in BD.

Methods: The study group consists of 50 patients with BD and 30 healthy control individuals who do not use any drugs and have any systematic illness. sTWEAK and sCD163 concentrations were determined by Enzyme Linked Immunosorbent Assay (ELISA) in serum samples of the study group.

Results: sTWEAK levels were significantly higher in BD (807 pg/mL vs. 663 pg/mL, $p=0.012$) and also sCD163 levels were significantly higher in BD (644 ng/mL vs. 501 ng/mL, $p=0.002$). Both sTWEAK and sCD163 concentrations were higher in active patients with BD (832 pg/mL and 667 ng/mL, respectively). Predictive values of sTWEAK and sCD163 levels obtained by Receiver Operating Characteristic (ROC) Curve analysis were found to be statistically significant.

Conclusions: sTWEAK and sCD163 levels were increased in patients with Behcet's Disease. These two molecules can take part in the pathogenesis of Behcet's Disease and might be used for evaluation of the clinical activity of the disease.

PO097. CONDITION OF ADHESIVE ENDOTHELIAL FUNCTION IN CORONARY HEART DISEASE PATIENTS

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Aim: To evaluate the role of adhesive endothelial dysfunction in the destabilization of coronary heart disease (CHD).

Methods: The study included 173 CHD patients: 92 patients with stable angina (45 – with II functional class (FC) and 47 – with III FC) and 81 patients with acute coronary syndromes (ACS) (43 – with unstable (progressive) angina (UA) and 38 – with acute myocardial infarction (MI)). 30 healthy subjects were included in the control group. Adhesive endothelial function was assessed by the concentration of soluble vascular adhesion molecule (sVCAM), which was determined by ELISA.

Results: Rise of sVCAM level occurred in 126 of 173 (72.8%) patients. sVCAM level increased with an increase of disease severity. The most severe changes were in patients with ACS, although differences between patients with UA and MI were not significant. There was no significant association between levels of sVCAM and troponin T ($r=0.19$, $p>0.05$). Therefore, we guess that the sVCAM raise is not associated with myocardial necrosis.

Increase of C-reactive protein (CRP) was detected in 135 of 173 (78.0%) patients. The significant relationships between levels of sVCAM and CRP were noted in both groups with stable CHD ($r=0.49$, $p<0.01$) and with ACS ($r=0.57$, $p<0.01$), indicating the role of inflammatory activation in the adhesive endothelial dysfunction.

Conclusions: The severity of the CHD is associated with hyperexpression of sVCAM.

Increase of sVCAM production can be considered as both a criterion of poor prognosis and one of the important determinants of CHD destabilization.

PO098. THE RELATIONSHIP OF THE ENDOTHELIAL DYSFUNCTION AND THE SEVERITY OF CORONARY ARTERY DISEASE ASSESSED BY THE NUMBER OF AFFECTED CORONARY ARTERIES

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Aim: Pulse amplitude tonometry (PAT) is a useful tool for the assessment of endothelial function expressed as reactive hyperemia index (RHI). The

aim of this study was to identify the impact of endothelial dysfunction on and the severity of coronary artery disease assessed by the number of affected coronary arteries.

Methods: Data from 416 patients who underwent PAT and the assessment of coronary artery disease were analyzed. We used Endo-PAT 2000® which is a kind of PAT. We investigated whether there is a relationship in endothelial dysfunction and the severity of coronary artery disease assessed by the number of affected coronary arteries.

Results: RHI values were 1.71 ± 0.51 , 1.66 ± 0.42 , 1.64 ± 0.41 and 1.56 ± 0.41 in no coronary artery disease, 1 vessel disease, 2 vessel disease and 3 vessel disease group, respectively. We could find the statistical difference between no coronary artery disease and 3 vessel disease group ($p=0.028$). Also, there was negative relationship between the endothelial dysfunction and the severity of coronary artery disease assessed by the number of affected coronary arteries ($r=-0.115$; $p=0.020$). In other words, the better endothelial function, the less involvement of coronary vessels.

Conclusions: The worse endothelial function is more likely to give rise to the more involvement of coronary vessels in regard to coronary artery disease.

PO099. CARDIOVASCULAR HEALTH AND FLOW-MEDIATED DILATATION (FMD) IN A SOUTH AFRICAN COHORT OF HIV-INFECTED PARTICIPANTS-FINDINGS FROM THE ENDOAFRICA STUDY

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Aim: The association between HIV, cardiovascular risk and vascular endothelial function (VEF) in South African adults is poorly characterized, despite high HIV/AIDS rates. This study assessed cardiovascular health and VEF in participants and determined whether HIV and ART status are associated with VEF variables.

Methods: HIV+ and HIV- adults were recruited during 2015-2016 in Worcester, South Africa, and allocated to HIV- control, HIV+ ART naïve, HIV+ 1st Line ART and HIV+ 2nd Line ART study groups. Several clinical and biochemical cardio-metabolic variables were assessed and VEF was assessed by brachial artery FMD (variables: baseline and maximum artery diameter and FMD%). ANOVA or Pearson's Chi Square tests were used for descriptive statistics, and independent predictors of VEF were tested with multiple linear regression models.

Results: Total population size: $n=152$ (HIV-: $n=36$, HIV+ ART naïve: $n=33$, HIV+ 1st Line ART: $n=50$, HIV+ 2nd Line ART: $n=33$). HIV+ groups presented with lower mean BMI, waist circumference, t-cholesterol and LDL-cholesterol values. No inter-group VEF differences were observed. HIV-status was not associated with changes in VEF; however female gender and fasting glucose negatively associated with artery diameter in all groups. FMD% was negatively associated with smoking in the 1st Line ART group and with CRP in the 2nd Line ART group. In the 2nd Line ART group CD4 count positively predicted FMD%.

Conclusions: Although HIV status per se was not associated with VEF changes, smoking was associated with reduced FMD% in 1st Line ART, whereas in 2nd Line ART, CRP associated with reduced FMD% and CD4 with improved FMD%.

PO100. EFFECT OF N-3 PUFA ON ENDOTHELIAL DYSFUNCTION IN THE METABOLIC SYNDROME

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