Relationship between Serum Gamma-glutamyl Transferase Levels with Aortic Root Dilatation

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Background: Increased serum gamma-glutamyl transpehrase levels (GGT) has been shown to directly promote oxidative stress. In previous studies has been shown the relationship between the dilatation of the ascending aorta with oxidative stress. This study was designed to examine the relationship between serum GGT concentrations with dilatation of the ascending aorta.

Methods: 83 patients with ascending aorta dilatation and 82 healthy person matched of age and sex were included in the study. The patients were evaluated by a complete transthoracic echocardiographic examination including measurement of the aortic dimensions. 4 cm and above ascending aorta dilatation was accepted. Serum GGT concentration were measured in all patients.

Results: 66 % of 83 patients with ascending aorta dilatation were male and average age were 56±12.1. In the control group 63% of 82 healthy person were male and average age were 55±11.3. In the group of ascending aorta dilatation; tension, left ventricular mass index, left atrial volume index, serum GGT, serum icric acid, hs- CRP were found to be significantly higher than control group. According to multiple logistic regression; hypertension history (OR:1.22, 95%CI 1.12-1.32, p =0.005), serum GGT (OR:1.09, 95%CI 1.04-1.14, p<0.005) for ascending aorta dilatation were found to be independent variables.

Conclusions: In conclusion, we found that serum GGT concentration was significantly associated with aortic dilatation. The higher serum GGT concentration may be responsible for the elevated serum antioxidant capacity that was observed among patients with ascending aorta dilatation. Large epidemiological studies are required to correlate the findings from this study with clinical outcome.

Epicardial Fat Thickness in Patients with Psoriasis Vulgaris

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Objective: Hemoglobin concentration (Hb) and left ventricular ejection fraction (LVEF) are known predictors of contrast induced nephropathy (CIN). We hypothesized that product of hemoglobin concentration and left ventricular ejection fraction is superior to either variable alone in predicting contrast induced nephropathy in patients with acute coronary syndrome (ACS).

Methods: Consecutive patients with ACS were prospectively enrolled for this study. Those patients considered for invasive strategy were included. Baseline creatinine levels were detected on admission and 24, 48 and 72 hours after coronary intervention. 25% or 0.5 mg/dl increase in creatinine level was considered as CIN.

Results: 268 patients with ACS (mean age 58±11 years, 77% male) were included in the study. Contrast induced nephropathy was observed in 26 (9.7%) of patients. Baseline creatinine concentration, LVEF, Hb and high density lipoprotein cholesterol was significantly different between two groups. Contrast volume to estimated glomerular filtration rate ratio (odds ratio 1.310, 95% confidence interval 1.077-1.593, p=0.007) and the product of Hb and LVEF (odds ratio 0.996, 95% confidence interval 0.994-0.998, p=0.001) were found to be independent predictors of contrast induced nephropathy in multivariable logistic regression analysis. Hb x LVEF < 690 had 85% sensitivity and 59% specificity to predict CIN (area under curve 0.724, 95% confidence interval 0.625-0.824, p<0.001).

Conclusion: In patients with acute coronary syndrome, the product of hemoglobin and ejection fraction is better than either variable alone at predicting contrast induced nephropathy. It predicts contrast induced nephropathy independent of baseline renal function and volume of contrast agent.
PP-142
Evaluation of Surrogate Markers of Atherosclerosis in Patients with Venous Thromboembolism
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Background: An increased cardiovascular risk has been evidenced in patients with deep venous thrombosis. We aimed to investigate the relationship between the extent of venous thromboembolism (VTE) and epicardial fat thickness (EFT) and carotid intima-media thickness (CIMT).

Methods: In this study 38 patients with VTE (distal and proximal), and 37 age and sex-matched control patients were enrolled as control group. The patients who had known coronary artery diseases, had abnormal wall motion, and had history of angina were excluded.

Results: The study group consisted of 38 patients, with a mean age 59±11 (55% male) and 37 healthy control group with a mean age 57.12 (54% male). There was no difference between in diabetes mellitus, hypertension, smoking in two groups. Similarly, total cholesterol, low density cholesterol high density cholesterol, and trigliceride levels did not have any difference. According to control group EFT was significantly higher than VTE group (7.1±3.1 mm vs 5.3±2.5 mm, p<0.001). Besides this, according to control group CIMT was significantly higher than VTE group (0.91±0.34 cm vs 0.6±0.12 cm, p<0.001).

Conclusions: This study showed that surrogate markers of atherosclerosis were more frequently seen in patients with VTE. The measurement of EFT and CIMT may represent a useful and reliable method to evaluate cardiovascular risk in patients with VTE.

PP-143
The Relationship between Epicardial Adipose Tissue and Endothelial Dysfunction in Patients with Type 2 Diabetes Mellitus
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Cardiovascular disease is the most important cause of mortality in patients with type 2 diabetes and is preceded by endothelial dysfunction. An increased epicardial adipose tissue is associated with incident coronary artery disease and major adverse cardiac events. The aim of the present study is to investigate the relationship between epicardial adipose tissue and endothelial function in patients with type 2 Diabetes Mellitus (DM).

Methods: Type 2 DM patients were divided into two groups according to their brachial flow mediated dilatation values. The endothelial dysfunction group consisted of 46 participants with flow mediated dilatation change <7%, while 46 participants with flow mediated dilatation change >7% were accepted as the non-endothelial dysfunction group. Thickness of the epicardial adipose tissue (EAT) was measured to right ventricular free wall adjacent to the parasternal long and short axis images. The patients' demographic, anthropometric and laboratory findings were recorded.

Results: The mean FMD values of patients were 13.2±4.9% in Non-DM Group and 3.5±3.4% in DM Group (p<0.001). Table 1 shows the baseline characteristics of patients. The EAT short and long axis diameters were shown in Figure 1. The HbA1c levels were significantly higher in EAT Group than Non-DM Group (respectively, 8.7±1.1%, 7.9±1.6%, p<0.038). There were a negative correlation between FMD values and EAT short and long axis diameters (respectively, r=-0.349, p=0.001, r=-0.351, p=0.001). The hematologic parameters including; white blood count, hemoglobin, platelet, lymphocyte count, red cell distribution width, mean platelet volume, neutrophil lymphocyte ratio and platelet lymphocyte ratio were similar between two groups. The neutrophil counts were higher in ED group than Non-DM Group (4733±1651 vs 4091±1252, p=0.041). In logistic regression analyses, HbA1c and EAT short axis diameter were found as predictors for ED (CI 95% was 2.278 for HbA1c, p=0.006 and CI 95% was 2.953 for EAT short axis diameter, p=0.0022).

Conclusion: Increased EAT diameters and HbA1c predict ED in patients with type 2 DM.

PP-144
Comparison of Inflammatory Markers in Patients with Ischemic and Non-ischemic Heart Failure
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Background: Heart failure (HF), which is a major cardiovascular health problem, has still a poor prognosis despite advances in its management. Several studies suggested that inflammation has an important role in HF progression. However, the location of inflammation in diagnosis and treatment of patients with HF is still unclear. Therefore, we aimed to compare inflammatory markers in patients with ischemic and non-ischemic HF.

Methods: This study included 46 ischemic HF (35 male, age 69±10 years) and 55 non-ischemic HF (35 male, age 61±11 years) patients who had functional class II-III, asymptomatic, low left ventricular ejection fraction (LV EF <40%). In addition, there was no coronary artery disease or angiographically significant stenosis (>50% in diameter) in non-ischemic HF patients. An age, sex-matched control group was composed of 40 (17 male, age 58±13 years) patients. We evaluated clinical and laboratory characteristics which are associated with inflammatory process such as red blood cell distribution width (RDW), white blood cells (WBC), neutrophil-to-lymphocyte counts (NLR), uric acid and high sensitivity C reactive protein (HS CRP).

Echocardiography was performed. The left atrial size, LV diameter and volumes, wall thickness were measured. LV EF was calculated by Simpson's method. The left atrial size, LV diameter and volumes, wall thickness were measured. LV EF was calculated by Simpson's method.

Results: Age, diabetes mellitus, hyperlipidemia, systolic and diastolic blood pressure were significantly higher in HF group when compared with control group. LV EF (29.6±4.8 vs 31±5, p=0.20), diameters and volumes was similar between ischemic and non-ischemic HF groups. According to control group, RDW (15.8±1.9 vs 15.5±1.8 vs 14.1±1.5, p<0.05), neutrophil-to-lymphocyte ratio [348 [169-768] vs 269 [65-722] vs 177 [58-268], p<0.05], uric acid (6.9±1.9 vs 6.1±1.8 vs 4.5±1.3 mg/dL, p<0.05) levels were significantly higher in heart failure groups. hs CRP levels [18.8 (1.1-92.7) vs 8.7 (1-42) mg/L, p<0.05], NLR [348 [169-768] vs 269 [65-722], p<0.05] were significantly higher in ischemic HF group when compared with non-ischemic HF group.