Results: There was male predominance in smokers with CAE. Smokers with CAE had higher MPV and WBC compared with both nonsmokers with CAE and controls (each P<0.05). Platelet count was comparable in smoking and nonsmoking CAE patients. Median hs-CRP level was higher in smokers with CAE than both non-smokers with CAE [3.2 (2.5 - 3.9) vs 2.9 (2.0 - 3.6) mg/L; P=0.01] and controls [3.2 (2.5 - 3.9) vs 1.9 (1.7 - 2.5) mg/L; P=0.001]. Similarly, serum fibrinogen level was higher in smokers with CAE compared with both non-smokers with CAE (373 ± 68 vs 347±54 mg/dl; P=0.02) and controls (373±68 vs 344±60 mg/dl; P=0.02). Also, smokers with CAE had higher level of D-dimer compared to non-smokers with CAE (262±65 vs 229±83 μg/dl, P=0.01) and controls (262±65 vs 188±61 μg/dl, P=0.001).

Conclusion: Our findings suggest that smoking may induce platelet activation, inflammation and prothrombotic state in CAE patients.

PP-324 Serum Nitric Oxide Levels in Patients with Isolated Coronary Artery Ectasia

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Background: Plasma levels of nitric oxide (NO) are decreased in patients with atherosclerosis and in those with risk factors for atherosclerosis. In these patients, reduction of the serum nitric oxide levels are correlated with the severity of endothelial dysfunction and atherosclerosis. Endothelial dysfunction and diffuse atherosclerosis have been proposed for the etiology of coronary artery ectasia (CAE). The aim of this study was to evaluate the relationship between CAE and serum nitric oxide levels.

Methods: The transient and volatile nature of NO makes it unsuitable for most convenient detection methods, however, the plasma levels of nitrite plus nitrate (NOx), two breakdown products, nitrate (NO3) and nitrite (NO2) can be detected by photometric methods. We measured plasma levels of NO by photometric methods in 40 patients with isolated coronary artery ectasia and 20 patients with normal coronary arteries as a control group (mean age 58.2±11.7 vs 57.1±12.5, resp. P=0.74).

Results: Plasma nitric oxide concentrations were significantly lower in the CAE group than control group (41.8±22.4 vs 77.3±21.9 μmol/L, P<0.001). We observed statistically significant correlation between decreased level of serum nitric oxide and the presence of isolated coronary artery ectasia (r= -0.61, P=0.001).

Conclusion: We found that serum NO level is decreased in patients with isolated coronary artery ectasia. These findings suggest that decreased NO level may be associated with endothelial dysfunction leading to the development of coronary artery ectasia.

PP-325 Mean Platelet Volume Associated with Aortic Distensibility, Chronic Inflammation and Diabetes in Patients with Stable Coronary Artery Disease

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Background: The patients with increased mean platelet volume (MPV) values had a higher risk of developing myocardial infarction and adverse cardiovascular events in stable coronary artery disease (CAD). In this study, we aimed to assess the effective factors on high MPV in patients with stable CAD.

Methods: In all, 411 consecutive patients (247 males and 164 females; mean age: 61.7±9.9 years) with angiographically proven CAD were included in the study. Two different groups were determined according to MPV values (MPV low group <9.5 fl., and MPV high group ≥9.5 fl.). Aortic distensibility was calculated from the echocardiographically derived ascending aorta diameters and hemodynamic pressure measurements. Extent and complexity of CAD was calculated by the SYNTAX score. MPV, high sensitive C-reactive protein (hsCRP) and other biochemical markers were measured with an automated chemistry analyzer.

Results: SYNTAX score, hsCRP levels and frequencies of diabetes and hypertension were higher in MPV high group compared with MPV low group (p<0.05, for all). Aortic distensibility value and platelet count of patients with MPV high group were lower than patients with MPV low group (p<0.05, for all). Multivariate linear regression analysis showed that MPV was independently related with diabetes (β=0.135, P=0.007), hsCRP (β=0.259, P=0.001), platelet count (β=0.144, P=0.001) and AD (β=0.425, P=0.001). Although MPV was associated with SYNTAX score in bivariate analysis, similar relationship was not observed with multivariate analysis (β=0.034, P=0.579).

Conclusion: High MPV value in patients with stable CAD is independently related with AD, as well as diabetes, hsCRP and platelet count.