

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 nonsmokers 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.

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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 ($r=-0.61$, $p<0.001$). In multivariate analysis serum NO level is a unique independent predictor of presence of coronary artery ectasia (OR=0.93; 95% confidence interval, 0.89-0.97, $p<0.001$).

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.

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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 (MPVlow group <9.5 fL, and MPVhigh 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 MPVhigh group compared with MPVlow group ($p<0.05$, for all). Aortic distensibility value and platelet count of patients with MPVhigh group were lower than patients with MPVlow group ($p<0.05$, for all). Multivariate linear regression analysis showed that MPV was independently related with diabetes ($\beta=0.135$, $p=0.007$), hsCRP ($\beta=0.259$, $p<0.001$), platelet count ($\beta=0.144$, $p<0.001$) and AD ($\beta=-0.425$, $p<0.001$). Although MPV was associated with SYNTAX score in bivariate analysis, similar relationship was not observed multivariate analysis ($\beta=-0.034$, $p=0.579$).

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

Comparison of baseline, clinical, laboratory, echocardiographic and angiographic findings

Variables	MPVlow Group (n=205)	MPVhigh Group (n=206)	P value
SYNTAX score	10.2±8.0	15.9±9.3	<0.001
hsCRP (mg/dl)	0.83±0.52	1.17±0.63	<0.001
Diabetes mellitus (%)	45 (22.0%)	109 (52.9%)	<0.001
AD (10-6 dyn-1 cm2)	3.1±1.4	1.8±1.2	<0.001

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Coronary Risk Profile and Clinical Features of Subjects with Myocardial Bridging Documented with MSCT Angiography

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Aims: Myocardial bridging is a congenital abnormality of coronary arteries which may cause functionally and anatomically restriction of coronary flow. Thus it may clinically manifest with angina, ischemia, and infarction or lethal arrhythmia during extreme strenuous exercise. We aimed to define whether clinical features of those patients with MB overlap with classical coronary risk factors.

Material-Method: We evaluated medical recordings (ECG, treadmill test results, laboratory findings and coronary risk factors) of 38 subjects with myocardial bridging diagnosed with MSCT angiography.

Results: Study population (age 40.15±4.7) had laboratory findings within normal ranges and low risk profile of atherosclerotic coronary artery disease (CAD). 2 patients had previous history of follow up in ICU, 7 patients had sporadically chest pain on exertion, 21 asymptomatic patients diagnosed detected with treadmill test upon minimal STsegment or T wave changes on resting ECG. Of 30 subjects, 4, 10 and 16 subjects had minimally ST/T wave changes on resting ECG in inferior, lateral and inferior lateral derivations, respectively. Treadmill test was interpreted as equivocal or positive in 32 and 6 subjects, respectively. Of the 36 and 2 patients' bridging was located in the mid and proximal segment of coronary artery, respectively. MB was located on LAD in 32 subjects, whereas it was located on IMA, Cx and RCA in 4, 2 and 2 subjects, respectively.

Conclusion: Patients with MB may have frequently low risk profile for CAD and may clinically manifest with minimal ECG changes and equivocal TT. So it should not be ignored if the subjects have low risk profile for CAD with minimal ECG changes accompanying with angina either typical or atypical. It should certainly be reminded especially in young, young adults, professional sportsmen, military or security personnel who may participate in extremely strenuous exercise. MSCT angiography is the best way of imaging coronary artery and provides anatomically evidence of atherosclerotic disease at any stage or presence of myocardial bridging on any coronary artery and also severity of luminal narrowing due to those lesions. It was documented that those lesions may disturb coronary flow and lead anginal symptoms by limiting coronary vasodilatation or causing vasospasm even they did not critically obstruct the coronary lumen on resting state. Myocardial bridging may not be so much innocent due to its potential to induce ischemia and arrhythmia especially in young and adult subjects.

	(N=38)	Mean±SD	Minimum	Maximum
Age (year)		40.16±4.71	28.00	46.00
Height		176.37±5.07	165.00	185.00
Weight		81.11±4.52	72.00	90.00
Heart Rate		80.6±13.9	52.00	116.00
Fasting blood glucose		91.21±5.38	83.00	105.00
Total cholesterol		201.00±32.77	129.00	263.00
LDL cholesterol		125.58±32.28	68.00	186.00
HDL cholesterol		44.42±5.73	37.00	54.00
Triglyceride		151.32±46.43	55.00	268.00