

Participants' characteristics at baseline and CVD incidence, by sex and cohort

	Men	Women
N	363	412
Age (years) a	43	42
Smoking (%)b	30	21
Physically active (%)	22	15
Alcohol consumption (% \geq 1 glass per month)	42	10
Alcohol (gram/day)a	18 (3-29)	1 (0-4)
Energy intake (kcal/day)a	1770 (1127-2399)	1250 (925-2264)
Vegetables (gram/day)a	210 (151-258)	198 (126-247)
Fruit (gram/day)a	187 (92-223)	154 (86-218)
Legumes (gram/day)a	20 (12-27)	17 (9-25)
Nuts (gram/day)a	4 (0-11)	2 (0-8)
Grains (gram/day)a	180 (126-338)	174 (132-294)
Fish and seafood (gram/day)a	3 (0-10)	2 (0-8)
Unsaturated fatty acids (gram/day)a	39 (27-51)	34 (26-44)
Saturated fatty acids (gram/day)a	62 (46-81)	55 (38-69)
Dairy and dairy products (gram/day)a	321 (193-524)	314 (190-488)
Meat products (gram/day)a	124 (108-155)	93 (61-112)
Fatal CVD (n)	3	2
Incident CVD (n)	15	10

Participants' characteristics at baseline and CVD incidence aNumbers are given as mean (sd) or as median (interquartile range); bCigarette, cigar or hookah; CVD = cardiovascular diseases, MI = myocardial infarction.

PP-280

Is MPO Activity and MDA a Marker of Determine Coronary Artery Disease in Non Diabetic Metabolic Syndrome Subjects?

Sebahat Tekeli Şengül¹, Aynur Terim Çağır², Ahmet Temizhan¹, Gülsevim Saydam², Özcan Özeke¹

¹Department of Cardiology, Ankara Yüksek İhtisas Hospital, Ankara, ²Department of Biochemistry, Ankara Yüksek İhtisas Hospital, Ankara

Introduction: This clinical study aimed to investigate MPO (myeloperoxidase) activity that is a marker of inflammatory and oxidative stress, is whether or not a marker to determine stable CAD (coronary artery disease) in MetS (metabolic syndrome) and to show the association between MPO activity and other inflammatory biomarkers (malondialdehyde (MDA), CRP, WBC, Fibrinogen).

Methods: 93 non-diabetic MetS subjects who underwent coronary angiography were enrolled in this study. Patient groups included 58 subjects (47 male, 11 female; mean age 59.6 \pm 11.2) who were diagnosed coronary artery disease and control group included 35 subjects (11 male, 24 female; mean age 50.7 \pm 8.8) without coronary artery disease. No patient have a recent history of an acute infection or an inflammatory disease.

Results: In our study MPO activity, hsCRP, WBC and fibrinogen levels showed no significant differences between CAD+ MetS group and non-CAD+MetS group (p>0.05). We found that MDA levels in MetS CAD groups were significantly higher than non-CAD MetS groups (p<0.05) (Table 1).

Conclusion: Our results show that MPO activity, hsCRP, WBC and fibrinogen levels were not seem to be a biomarker for stable CAD in MetS, independently component of MetS. However this study suggests that MDA level will may be a biomarker for CAD in MetS. MDA is one of frequently used indicator of lipid peroxidation. MPA may be a potential biomarker for oxidative stress and a predictor of KAH in MetS groups.

Table 1

	MetS+CAH	MetS	p değeri
MPO(U/L)	48.92 \pm 22.08	45.62 \pm 12.02	0.488
MPA(μ mol/L)	7.56 \pm 1.57	6.53 \pm 1.13	0.001
hsCRP(mg/dl)	0.440 \pm 0.50	0.476 \pm 0.48	0.587
Fibrinogen(g/L)	3.55 \pm 0.79	3.52 \pm 1.01	0.763
WBC ($\times 10^3$ /U)	7.33 \pm 1.34	7.70 \pm 1.44	0.222

PP-281

Retrospectively, Compared Percutaneous Coronary Intervention and Surgical Revascularization Results for the Treatment of Multivessel Coronary Artery Disease According to Syntax Scores Groups

Fatih Aytemiz¹, Efe Adem², Zülküf Tanrıverdi³, Ümmü Tas³, Barış Ünal³, Abdulla Arslan³, Önder Kırımlı³

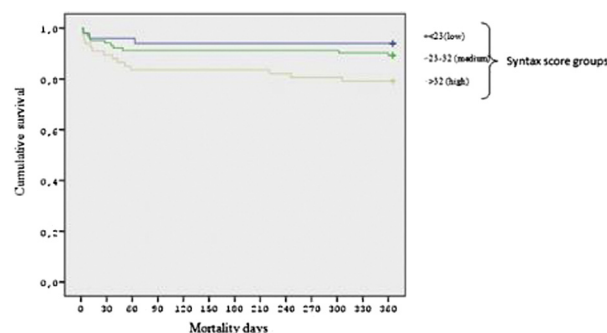
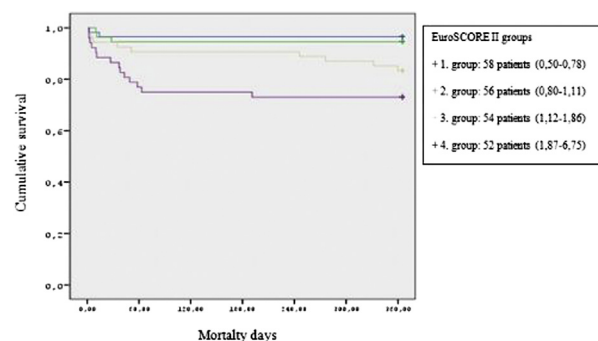
¹İzmir Atatürk Training and Research Hospital, İzmir, ²İzmir Bozyaka Training and Research Hospital, İzmir, ³İzmir Dokuz Eylül University Hospital, İzmir

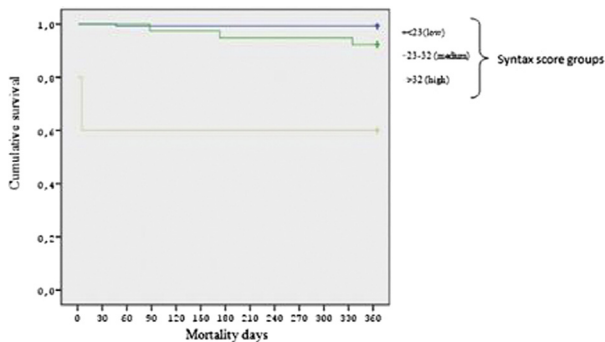
Introduction and Objective: Syntax scoring system was established by lesion number, place and functional importance in angiography which projects objective and essential data for severity of coronary artery disease (CAD). Our aim in this study is to classify and compare the results of revascularization methods in multiple vessel CAD or left main coronary artery disease (LMCA) patients in their first intervention as percutaneous coronary intervention (PCI) or coronary artery bypass grafting (CABG) due to syntax scoring system.

Method: We included totally 391 patients which were diagnosed previously as multiple vessel CAD or LMCA disease after coronary angiography in Cardiology Department in Dokuz Eylül Faculty of Medicine Hospital between 01/01/2009 and 12/31/2010. 171 of 391 patients was initially revascularized by PCI, CABG was performed in 220 of 391 patients. Both PCI and CABG groups were divided into three subgroups as syntax scoring system as low (<23), intermediate (23-32) and high (>32). Also, EuroSCORE II and logistic EuroSCORE values were calculated in CABG group. Mortality rates in hospital stay and during first year were evaluated in both revascularization method.

Results: The mean age in PCI group was 61.21 \pm 10.93 and 71,3% was male on the other hand in CABG group the mean age was 63.08 \pm 9.43 and 80,0% was male (age, p=0,013; sex, p=0,046). Mean syntax score was detected as 19.72 \pm 5.85 in PCI group and 28.23 \pm 7.11 in CABG group (p=0,008). The mean EuroSCORE II value was 1,43 and mean logistic EuroSCORE value was 7,20 in CABG group. Mortality rate during hospital stay was detected as 1,2 % (2 patients) in PCI group, 9,5% (21 patients) in CABG group (p<0,001). First year mortality in PCI group was 2,3% (4 patients), 3,2% (7 patients) in CABG group (p=0,762). High syntax score was calculated in two mortal patients during hospital stay in PCI group. In CABG group, there was no statistically significant difference in hospital mortality occurred in patient with a high score of syntax (p=0,18). The most significant parameter in mortality during hospital stay was detected as EuroSCORE II average values (p<0,001) followed by age and left ventricular ejection fraction average values (respectively p=0,003 and p=0,021) in CABG group. In this group there were no significant difference due to syntax scoring averages (p=0,121).

Discussion: In our study we investigated retrospectively the mortality rates during hospital stay and first year in PCI or CABG which performed in multiple vessel CAD and LMCA disease patients. The mortality rates during hospital stay was significantly higher in CABG group in comparison to PCI group. However PCI group had lower syntax score average and less LMCA disease patients. Syntax scoring system is not successful in prediction of mortality during hospital stay and first year in CABG group.





PP-282

Association between Development of the Coronary Collateral Arteries and Epicardial Adipose Tissue Thickness

Bilal Geyik¹, Flora Özkalaycı¹, Özcan Özdemir², Çağdaş Kaynak¹, Mustafa Yılmaztepe¹, Selçuk Öztürk¹, Gökay Taylan¹, Aykut Yılmaz¹, Yücel Kaçmaz¹, Ali Manav¹, Uğur Özkan¹, İbrahim Özyamaç¹, Yüksel Aksoy¹

¹Department of Cardiology, Trakya University School of Medicine, Edirne,

²Department of Cardiology, Çağ Hospital, Ankara

Introduction: Epicardial adipose tissue (EAT) is a tissue that is directly related with coronary arteries. Relation between EAT and coronary artery disease are investigated in many studies. According to the investigations EAT is a source of bioactive molecules such as immunologic, vascular and inflammatory mediators. EAT can stimulate an angiogenic response and improve the coronary collateral circulation (CCC) in those patients with obstructive coronary artery disease. In this study we aimed to investigate the relation between collateral circulation and EAT.

Materials and Method: We included 57 patients with at least one coronary artery totally obstructed. Collateral circulation was defined according to the Rentrop grading system and classified into two groups as those with poor collaterals (grade 0-1, Group 1) n:29 and those with good collaterals (grade 2-3, Group 2) n:28. EAT thickness was measured by echocardiography and the relation was investigated between these two groups.

Results: EAT was established considerably increased in those patients who had well developed collateral circulation (p:0,02). Waist circumference was considerable in the well-developed collateral group. In addition to this hyperlipidemia frequency and lesion extent was higher in the well developed collateral group. Logistic regression analysis showed that EAT thickness and lesion extent were independent predictors of well developed CCC.

Conclusion: We determined that EAT was related with a developed collateral circulation and this can be explained with the secretion of bioactive molecules that cause inflammatory response resulting with angiogenesis.

PP-283

Influence of Chronic Aortic Insufficiency on the Coronary Artery Diameter

Hamza Sunman, Kadriye Yayla, Mehmet Erat, Furkan Şahan, Ali Nallbani,

Mehmet Aytürk, Tolga Han Efe, Murat Bilgin, Ahmet Akyel, Tolga Çimen,

Sadık Açıkel, Mehmet Doğan, Ekrem Yeter

Ministry of Health, Dışkapı Yıldırım Beyazıt Research and Educational Hospital, Ankara

Background: Several experimental and clinical studies have reported a direct relation between acute aortic insufficiency and coronary dimensions. However, there is not enough study to evaluate total coronary artery diameter in patients with chronic aortic insufficiency.

Methods: In this study, total coronary artery diameter was calculated in patients with and without chronic moderate/severe aortic insufficiency. Mean diameter of the three major coronary arteries [left anterior descending (LAD), circumflex (Cx), and right coronary artery (RCA)] was determined by quantitative coronary arteriography in 26 patients with aortic valve disease and in 26 patients without aortic valve disease. The total coronary diameter was taken as the sum of cross sectional area of the 3 major coronary arteries i.e. RCA, LAD, Cx supplying the left ventricle.

Results: Two study groups were similar in terms of baseline characteristics. The mean diameter of left main coronary artery (LMCA), LAD and Cx were larger in aortic valve disease than in controls [LMCA 4,49±0,85mm vs 3,73±0,69mm, p=0,001; LAD 3,19±0,66mm vs 2,80±0,49mm, p=0,022; Cx 2,93±0,58mm vs 2,55±0,46mm, p=0,012, respectively]. Right coronary artery (RCA) diameter was not statistically different in both group (RCA 3,00±0,71mm vs 2,73±0,56mm, p=0,136). Total coronary artery diameter was larger in aortic valve disease than in controls (9,12±1,61mm vs 8,12±1,20mm, respectively) (p= 0,016).

Conclusion: This study suggest that total coronary artery diameter and mean diameter of the LMCA, proximal LAD and Cx were increased in patients with chronic aortic

insufficiency. However it was determined that mean diameter of RCA was similar in both groups.

PP-284

Electrocardiographic Characteristics of Acute Coronary Syndromes with Culprit Lesion Localized in the Circumflex Artery

Burcak Kilickiran Avcı, Ece Yurtseven, Sevgi Özcan, Baris İkitimur,

Bilgehan Karadağ, Vural Ali Vural, Zeki Ongen

Istanbul University, Cerrahpaşa Faculty of Medicine, Department of Cardiology,

Istanbul

Am: Acute occlusion of the circumflex artery (Cx) frequently presents a diagnostic challenge. In this study, patients hospitalized with acute myocardial infarction (MI) and angiographically determined Cx occlusions as culprit lesions were investigated in terms of their clinical presentation (ST segment elevation [STEMI] vs. non-ST segment elevation MI [NSTEMI]) and electrocardiographic findings.

Methods: A total of 362 consecutive patients hospitalized with acute MI during years 2009-2012 were retrospectively screened. Patients without history of previous coronary artery disease and in whom a single culprit lesion (causing total occlusion or ≥90% stenosis associated with less than TIMI III distal flow) was detected in coronary angiography (n=131) were enrolled. Patients were divided into three groups according to the site of the culprit lesion as follows: Cx group (n=33), right coronary artery (RCA) group (n=43) and left anterior descending artery (LAD) group (n=55). The electrocardiographic findings at initial presentation of the Cx group were investigated and compared with the other patients, along with echocardiographically determined left ventricular ejection fractions (EF) and peak creatinine kinase MB (CK-MB) levels.

Results: There were 82 cases (63%) with STEMI and 49 cases (37%) with NSTEMI. In patients presenting with STEMI, only 13% had Cx as the culprit lesion, whereas Cx was determined as culprit in 45% of the cases with NSTEMI (p<0.001). Significantly more patients in the Cx group presented with NSTEMI compared with the other groups (67% in Cx group vs. 21% in RCA group vs. 33% in LAD group, p<0.001). As would be expected, patients in the Cx group had higher EF (p<0.001) and lower peak CK-MB (p<0.001) values compared to the LAD group. ST segment elevation was most frequently observed in leads DIII (63.6%) and aVF (63.6%) and ST segment depression was most frequently seen in leads V5 (50%) and V4 (45.5%) in the Cx group. Out of 33 patients with Cx as the culprit artery, 10 (30%) had no specific ST segment (elevation and/or depression) changes. There were six distinct ST segment changes: (1) inferior (DII, DIII, aVF) ST elevation (21.2%), (2) lateral (V5,V6) ST elevation (9.1%), (3) posterior (V7-V9) ST elevation (12.1%), (4) septal (V1-V4) ST depression (30.3%), (5) anterolateral (V4-V6) ST depression (39.4%), and (6) high lateral (DI,aVL) ST depression (21.2%). ECG changes were not significantly different in cases with distally located Cx culprit lesions compared to ones with proximally located culprit Cx lesions.

Discussion: Acute MI associated with the Cx artery frequently present as NSTEMI. The detection of site of culprit lesion in these patients by using initial ECG findings seem to be difficult. The findings of this study once again underlines the need for improvement in the diagnostic approach of acute Cx occlusions.

PP-285

Serum Levels of Interleukin-6 are Correlated to the Angiographic Extent and Severity of Coronary Artery Disease

Özge Özsaçmacı¹, Aycahan Fahri Erkan², Berkay Ekiçi², Aslı Tanındı², Uğur Erçin¹, Murat Uğurlu², Bülent Çelik³, Ayşe Bilgihan¹, Hasan Fehmi Töre²

¹Gazi University, Faculty of Medicine, Medical Biochemistry Department, Ankara,

²Ufuk University, Faculty of Medicine, Cardiology Department, Ankara, ³Gazi

University, Faculty of Arts and Sciences, Statistics Department, Ankara

Am: Interleukin-6 (IL-6), an important modulator of the inflammatory response, is believed to contribute to the atherosclerotic process by activating various pathways of inflammation. The aim of this study is to investigate the relationship between serum IL-6 levels and the angiographic severity and extent of coronary artery disease.

Methods: One hundred and thirty-four individuals who underwent coronary angiography due to a positive stress test were included in the study. Individuals with known inflammatory/infectious conditions and those who were receiving anti-inflammatory medications were excluded from the study. Individuals who had at least 50% percent stenosis in a major epicardial artery and a Gensini score ≥20 constituted the patient group (n=68), and those who did not have any significant stenosis and with a Gensini score < 20 constituted the control group (n=66). Serum IL-6 levels were determined using the ELISA method.

Results: Serum IL-6 levels were significantly higher in the patient group when compared to the control group (22.7±24.9 pg/mL vs. 14.5±13.6 pg/mL, respectively; p=0.022). There was a positive and significant correlation between serum IL-6 levels and the Gensini score (r=0.268, p=0.002).

Conclusion: Serum levels of IL-6 are higher in individuals with significant CAD when compared to those without, and IL-6 levels are positively correlated to the severity and extent of CAD. The exact role of IL-6 in CAD pathogenesis and its potential value as a therapeutic target should be elucidated with further studies.