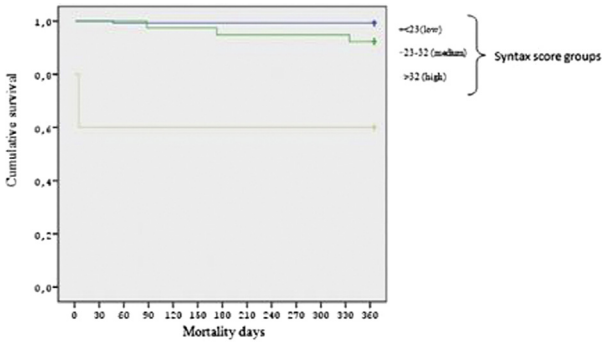

PP-282

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

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Introductıon: 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 inflamatuary mediators. EAT can situmulate a angiogenic responce and improve the coronary collateral ciculation (CCC) in those patients with obstructive coronary artery disease. İn this study we aimed to investigate the relation between collateraly circulation and EAT.
Materials and Method: We included 57 patients with at least one coroner artery totaly 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 realtion 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 adition to this hyperlipidemia frequency and lesion extensity was higher in the well developed collateral group. Logistic regression analysis showed that EAT thickness and lesion extensity were independent predictors of well developed CCC.
Conclusıon: 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 responce resulting with angiogenesis.

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Influence of Chronic Aortic Insufficiency on the Coronary Artery Diameter

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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).
Conclusıon: 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.

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

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Aım: 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.
Dıscussıon: 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

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Aım: 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).
Conclusıon: 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.

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