PP-280
Is MPO Activity and MDA a Marker of Determine Coronary Artery Disease in Non Diabetic Metabolic Syndrome Subjects?

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Introduction: This clinical study aimed to investigate MPO (myeloperoxidase) activity that is a marker of inflammatory and oxidative stress, is weather 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±11.2) who were diagnosed coronary artery disease and control group included 35 subjects (11 male, 24 female; mean age 50.7±9.6) without coronary artery disease. No patient have a recent history of an acute infection or an inflammatory disease. No patient were enrolled in this study. Patient groups included 58 subjects (47 male, 11 female; mean age 59.6±11.2) who were diagnosed coronary artery disease and control group included 35 subjects (11 male, 24 female; mean age 50.7±9.6) without coronary artery disease. No patient have a recent history of an acute infection or an inflammatory disease. Our results show that 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 CAD group was 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 may be marker 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

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<thead>
<tr>
<th>MetS+CAH</th>
<th>MetS</th>
<th>p değeri</th>
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<tbody>
<tr>
<td>MPO(U/L)</td>
<td>48.92±22.08</td>
<td>45.62±12.02</td>
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<tr>
<td>MPA(μmol/L)</td>
<td>7.56±1.57</td>
<td>6.53±1.13</td>
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<td>hsCRP(mg/dL)</td>
<td>0.440±0.50</td>
<td>0.476±0.48</td>
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<td>Fibrinogen(g/L)</td>
<td>3.55±0.79</td>
<td>3.52±1.01</td>
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<tr>
<td>WBC (x10^3/μL)</td>
<td>7.33±1.34</td>
<td>7.70±1.44</td>
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PP-284
Electrocardiographic Characteristics of Acute Coronary Syndromes with Culprit Lesion Localized in the Circumflex Artery
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Aim: 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]).

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 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).

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 DII, DIII, aVF (63.6%) and V5, V6 (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 (DLAVL) ST depression (21.2%). ECG changes were not significantly different in cases with distally located Cx culprit lesions compared to those 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 thus 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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Aim: 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 (n=134) were enrolled. Individuals with known inflammatory/infectious conditions and those who were receiving anti-inflammatory medications were excluded from the study. Individuals who had at least 90% 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 who were 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.