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## Stable Ischemic Heart Disease

### CLINICAL UTILITY OF THE SYNTAX SCORE AND SERUM EICOSAPENTAENOIC ACID FOR CARDIAC RISK STRATIFICATION OF DIABETIC PATIENTS TREATED WITH PERCUTANEOUS CORONARY INTERVENTION

Poster Contributions

Hall C

Saturday, March 29, 2014, 10:00 a.m.-10:45 a.m.

Session Title: The Roles of Diabetes, Obesity, and Kidney Disease in Stable Atherosclerotic Heart Disease

Abstract Category: 25. Stable Ischemic Heart Disease: Clinical

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**Background:** The deterioration of coronary flow during percutaneous coronary intervention (PCI) which is represented in no-reflow or slow-flow is associated with poor prognosis. A high SYNTAX score (SXscore) may be related with the development of no-reflow in acute myocardial infarction. A high ratio of serum eicosapentaenoic acid (EPA) to arachidonic acid (AA) has protective effect against cardiac events. We hypothesized that the use of the SXscore and serum EPA/AA ratio could identify the coronary slow-flow in patients treated with PCI.

**Methods:** The study included 295 patients undergoing PCI. The primary endpoint was the incidence of coronary slow-flow. The deterioration of coronary flow was evaluated by the corrected TIMI frame count (cTFC).

**Results:** Mean age was 67±11 years. Diabetes and acute coronary syndrome were 35% and 22%, respectively. Median value of SXscore and EPA/AA ratio were 12 and 0.5. Mean cTFC was 15.9±8.2. Based on the cut-off points, patients were categorized to four groups; Group1 (SXscore≥12 and EPA/AA<0.5, n=82), Group2 (SXscore≥12 and EPA/AA≥0.5, n=69), Group3 (SXscore<12 and EPA/AA<0.5, n=68), Group4 (SXscore<12 and EPA/AA≥0.5, n=76). Although the slow-flow was observed in 22 patients, there was no significant difference among four groups. In diabetic patients, however, incidence of slow-flow was significantly high in Group1 as compared to other three groups (8 patients in Group1 vs. each 1 patient in Group2, Group3 and Group4, p=0.05). And in diabetic patients, cTFC was also significantly high in Group1 as compared to other three groups (Group1: 21, Group2: 14, Group3: 15, Group4: 16. p=0.03).

**Conclusions:** In the diabetic patients, a higher SXscore and a lower EPA/AA ratio were associated with an increased risk of slow-flow. These factors which reflect complexity and vulnerability of coronary artery may be useful for cardiac risk stratification of patients undergoing PCI.