PLASMA OMENTIN SIGNIFICANTLY PREDICTS CARDIOVASCULAR EVENTS INDEPENDENTLY FROM THE PRESENCE AND EXTENT OF ANGIOGRAPHICALLY DETERMINED BASELINE CORONARY ARTERY DISEASE

Poster Contributions
Poster Hall B1
Sunday, March 15, 2015, 3:45 p.m.-4:30 p.m.

Session Title: Novel Markers of Vascular Risk
Abstract Category: 43. Vascular Medicine: Basic
Presentation Number: 1223-331

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Background: No prospective data on the power of the new adipocytokine omentin to predict cardiovascular events are available. We therefore aimed at investigating i) the association of plasma omentin with cardiometabolic risk markers, ii) its association with angiographically determined coronary atherosclerosis, and iii) the power of plasma omentin to predict cardiovascular events.

Methods: We measured plasma omentin in a series of 295 patients undergoing coronary angiography for the evaluation of established or suspected stable CAD; presence of baseline CAD was defined as the presence of any lumen irregularities at angiography; the extent of baseline CAD was defined as the number of significant coronary stenoses ≥50%; prospectively cardiovascular events were recorded over a mean follow-up period of 3.5 years.

Results: During this period, 17.6% of our patients suffered cardiovascular events, corresponding to an annual event rate of 5.3%. Plasma omentin did not differ significantly between patients with and subjects without significant CAD (p=0.783), but prospectively omentin significantly predicted cardiovascular events after adjustment for age, gender, BMI, diabetes, hypertension, LDL cholesterol, HDL cholesterol and smoking with a standardized adjusted hazard ratio (HR) of 1.41 [95% CI 1.16-1.72], p<0.001, as well as after additional adjustment for the presence and extent of CAD at the baseline angiography (HR 1.52 [95%CI 1.23-1.86], p<0.001).

Conclusion: From this first prospective evaluation of the cardiovascular risk associated with plasma omentin we conclude that elevated omentin is a strong predictor of cardiovascular events independently from the presence of baseline CAD.