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## Stable Ischemic Heart Disease

**BODY MASS INDEX SIGNIFICANTLY MODULATES THE POWER OF C-REACTIVE PROTEIN TO PREDICT CARDIOVASCULAR EVENT RISK AMONG ANGIOGRAPHIED CORONARY PATIENTS**

Poster Contributions

Poster Hall B1

Saturday, March 14, 2015, 10:00 a.m.-10:45 a.m.

Session Title: Risk Markers, CAD, Prognosis

Abstract Category: 26. Stable Ischemic Heart Disease: Clinical

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**Background:** Epidemiological studies in various populations show that obesity is associated with inflammation and with increased cardiovascular risk, and that the inflammatory marker C-reactive protein (CRP) strongly predicts the incidence of cardiovascular events. Whether CRP is equally predictive of cardiovascular event risk in obese patients and in non-obese subjects is not known and is addressed in the present study.

**Methods:** Cardiovascular events were recorded over a follow-up period of 10 years in a large high-risk population of 1731 consecutive patients undergoing coronary angiography for the evaluation of established or suspected stable coronary artery disease (CAD). Obesity was defined as body mass index (BMI)  $\geq 30$  kg/m<sup>2</sup>.

**Results:** At baseline, CRP surprisingly was significantly higher in non-obese subjects (n=1367) than obese individuals (n=364;  $0.6 \pm 1.5$  vs.  $0.5 \pm 0.8$  mg/dl;  $p < 0.001$ ). Prospectively, 27.8% of our patients suffered vascular events. CRP proved to be a strong and independent predictor of vascular events in non-obese subjects (HR 1.13 [1.06-1.20];  $p < 0.001$ ) but not in obese subjects (HR 1.08 [0.94-1.235];  $p = 0.262$ ). An interaction term BMI x CRP was significant ( $p < 0.001$ ), indicating that the mass index weight significantly modulated the power of CRP to predict vascular events.

**Conclusion:** From the results of this large 10-year prospective cohort study we conclude that obesity significantly modulates the power of CRP to predict cardiovascular event risk among angiographed coronary patients.