

## Prevention

### THE ASSOCIATION OF HUMAN RESISTIN AND CARDIOVASCULAR DISEASE IN THE MULTI-ETHNIC STUDY OF ATHEROSCLEROSIS (MESA)

Poster Contributions

Poster Sessions, Expo North

Saturday, March 09, 2013, 3:45 p.m.-4:30 p.m.

Session Title: Prevention: Risk Factors, from Tooth Loss to Resistin

Abstract Category: 24. Prevention: Clinical

Presentation Number: 1147-19

Authors: *Evan D. Muse, Michael J. Blaha, Rajesh Tota-Maharaj, Matthew J. Budoff, Kurrham Nasir, Michael H. Criqui, Mary Cushman, Robyn L. McClelland, Roger S. Blumenthal, Matthew A. Allison, Johns Hopkins Hospital, Baltimore, MD, USA*

**Background:** Resistin was initially investigated as a potential link between obesity and insulin resistance, leading to interest in its use as a biomarker for a number inflammatory and cardiovascular diseases. In this study we sought to more clearly define the relationship of resistin to subclinical atherosclerosis, cardiovascular events, and all-cause mortality in a large, multi-ethnic population.

**Methods:** We studied 1,965 participants enrolled in MESA with no prior documented cardiovascular disease who had serum resistin measured as part of an ancillary study. Using multivariable Cox regression we assessed the association of increasing quartiles of resistin for incident coronary heart disease (CHD), congestive heart failure (CHF), and all-cause mortality.

**Results:** The mean age of the population was 64.7 years and 50% were women. The median resistin concentration was 15.0 ng/mL (11.9[Unable to Display Character: &#8211;]19.1). As shown in the table, after a mean follow-up of 4.6 years the highest quartile of resistin, when compared to the lowest quartile, was associated with incident CHD (HR 2.2,  $p=0.03$ ) and CHF (HR 2.9,  $p=0.05$ ) events, but not all-cause mortality, independent of age, gender, race, BMI, HOMA-IR, and hsCRP.

**Conclusion:** The highest quartile of resistin predicts CHD and CHF events, although attenuated after adjusting for other cardiometabolic risk factors.

	Model 1 (unadjusted)	Model 2 (age/gender/race)	Model 3 (+BMI/HOMA/CRP)	Model 4 (+HTN,DM2,Cig, Chol,LDL,HDL)
CHD Events	3.46 (1.71-7.00)	2.65 (1.29-5.45)	2.20 (1.06-4.55)	2.15 (0.96-4.83)
CHF Events	5.72 (1.98-16.54)	3.76 (1.28-11.04)	2.93 (0.99-8.69)	2.00 (0.66-6.07)
All-cause Death	1.56 (0.84-2.92)	0.95 (0.50-1.81)	0.90 (0.46-1.74)	0.75 (0.37-1.50)