11:15 a.m.

812-2 **Endothelial Dysfunction Predicts Cardiovascular Events in a Multi-Ethnic General Population (Northern Manhattan Study)**

Cairistine N. Grahame-Clarke, Carlos J. Rodriguez, Ralph L. Sacco, Robert R. Sciacca, Bernadette Boden-Albala, Marco Di Tullio, Shunichi Homma, Columbia-Presbyterian Medical Center, New York, NY

OBJECTIVES: The goal of this study was to determine the relative risk of endothelial dysfunction for adverse cardiovascular events in the general population. BACKGROUND: Although endothelial dysfunction is known to be associated with risk factors for atherosclerosis, the prognostic significance of endothelial dysfunction in the general population is unknown. METHODS: We studied 842 subjects in a multiethnic population in northern Manhattan,.Subjects were 55 years or older with no previous myocardial infarction or stroke. Flow mediated vasodilation was determined at baseline. RESULTS: 555 Hispanic, 144 African American, 122 White American, and 21 other race/ethnicity subjects were followed for a mean of 38+-11 months. Eleven myocardial infarctions, 10 strokes and 9 vascular deaths occurred during follow-up. There was a significant increase in the risk of cardiovascular events in those with impaired flow-mediated dilation by univariate analysis; (for every 1% decrease in endothelial reactivity there was an increased risk of an event (hazard ratio [HR]: 1.14 [95% confidence interval [CI]: 1.02 to 1.27 p=0.02). CONCLUSIONS: Endothelial dysfunction is associated with an increased risk of vascular events. This is the first report that endothelial dysfunction is of prognostic value in a multiethnic general population.

11:30 a.m.

812-3 **Correlates of Elevated C-Reactive Protein Among Adults in the United States: Findings From the 1999-2000 National Health and Nutrition Examination Survey**

David Klingman, Setareh Williams, Timothy Smith, Jeonghoon Ahn, Cheryl Prasad, John O'Donnell, ValueMedics Research, LLC., Arlington, VA, AstraZeneca Pharmaceuticals, LP, Wilmington, DE

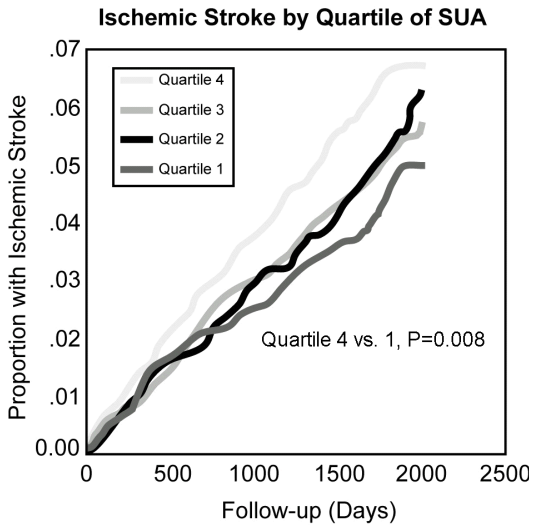
Background: Elevated C-reactive protein (CRP) is a marker of inflammation and a strong predictor of cardiovascular (CV) morbidity and mortality; however, little is known about its prevalence and relationships with established CV risk factors. **Methods:** We examined the prevalence and correlates of elevated CRP (2.0-10.0 mg/L) among 4,444 adult respondents (age ≥20 years) to the 1999-2000 National Health and Nutrition Examination Survey (NHANES). Demographic and clinical characteristics were screened for crude (unadjusted) associations with elevated CRP (χ^2 p-value < 0.2). We conducted a weighted multivariate logistic regression analysis that included gender, age group, obesity (body mass index ≥ 30 kg/m^2), total cholesterol (≥ 240 mg/dL), fasting triglyceride (> 150 mg/dL) and blood glucose (110-125 mg/dL) levels, alcohol use, low educational attainment (< high school), history of coronary heart disease, diabetes, hypertension, or arthritis. All analyses were performed using SUDAAN®. **Results:** Overall prevalence of elevated CRP was 47.1% (male 40.2%, female 54.1%), or 76.5 million adults out of an estimated population of 162.3 million (299 cases [6.7%] missing; 523 cases [11.8%] > 10 mg/L, which can indicate infection or trauma). Prevalence of elevated CRP was significantly higher among the obese (odds ratio [OR] 3.54, 95% confidence interval [CI] 2.28-5.49), ages 55-64 (OR 1.99, 95% CI 1.07-3.71) and 65-74 (OR 2.29, 95% CI 1.21-4.34) (relative to ages 20-34), the less educated (OR 2.06, 95% CI 1.30-3.26) (relative to high school graduates), females (OR 1.85, 95% CI 1.24-2.74), and persons with high triglyceride levels (OR 1.41, 95% CI 1.04-1.91). Ethnicity, country of birth, smoking, and family history of heart attack or angina were *not* significantly associated with elevated CRP. **Conclusion:** Elevated CRP is a highly prevalent condition in the US. Its correlates appear to be similar to those for other CV precursors, but key differences, particularly regarding gender and socioeconomic status, warrant further investigation. These features of elevated CRP may have implications for identifying persons with high CV risk, but who may not otherwise qualify for therapy under current guidelines.

11:45 a.m.

812-4 **Serum Uric Acid and Ischemic Stroke Risk Among Hypertensive Patients With Left Ventricular Hypertrophy: The Losartan Intervention for Endpoint Reduction in Hypertension (LIFE) Study**

Jorge R. Kizer, Aud Hoieggen, Michael H. Alderman, Sverre E. Kjeldsen, Bjorn Dahlof, Stevo Julius, Gareth Beevers, Ulf de Faire, Frej Fyhrquist, Hans Ibsen, Krister Kristiansson, Ole Lederballe-Pedersen, Lars H. Lindholm, Marku S. Nieminen, Per Omvik, Suzanne Oparil, Hans Wedel, Jonathan M. Edelman, Steven M. Snapinn, Richard B. Devereux, Weill Medical College of Cornell University, New York, NY, Ullevaal University Hospital, Oslo, Norway

Several reports have detailed an association between serum uric acid (SUA) and cardiovascular events. Whether such a relationship is independent of other risk factors is uncertain, however, and still less is known about the relationship between SUA and ischemic stroke. We evaluated the prognostic significance of elevated SUA at study entry for the incidence of ischemic stroke in LIFE. The study comprised 9193 hypertensive patients with ECG-LVH randomized to losartan or atenolol and followed for a mean of 4.8 years. There were 480 incident ischemic strokes. SUA treated as a continuous variable was not related to ischemic stroke in unadjusted or adjusted analyses that included treatment, Framingham Risk Score, degree of ECG LVH, race, body mass index, pulse pressure, exercise, alcohol use, AFib, cardiovascular disease, renal insufficiency and albuminuria. To investigate the relationship further, sex-specific quartiles of SUA were generated based on the distribution in the entire cohort. The highest quartile of SUA was associated with a significantly higher risk of ischemic stroke compared to the lowest quartile (Figure), and this relationship remained significant after multivariable adjustment for all of the above covariates (HR 1.38; 95% CI 1.04-1.84; P=0.026). In this large hypertensive cohort with LVH, elevated SUA was an independent risk factor for ischemic stroke. Further studies are needed to investigate this relationship and to determine whether lowering of SUA can reduce cerebrovascular risk.



Noon

812-5 **Metabolic Syndrome and Cardiovascular Risk Profile in Patients With Myocardial Infarction**

Giacomo Levantesi, Alejandro Macchia, Aldo Pietro Maggioni, Maria Grazia Franzosi, Luigi Tavazzi, Gianni Tognoni, Franco Valagussa, Roberto Marchioli, The GISSI Prevenzione Investigators, Consorzio Mario Negri Sud, Santa Maria Imbaro, Italy

Background: It has been shown that the Metabolic Syndrome (MetS) increases the risk for cardiovascular disease and developing diabetes. Since scanty data on the role of MetS in patients with myocardial infarction (MI) are available, we analyzed the GISSI-Prevenzione database to evaluate the prognostic role of MetS in this clinical setting.
Methods: We selected 9109 non-diabetic patients with glycaemia <126 mg% at baseline. For MetS diagnosis we modified the ATP III criteria using BMI >26 instead of waist circumference. Cox regression models adjusted for relevant prognostic indicators were fitted.
Results: 3207 patients (35.2%) had a MetS and the results of the multivariate analysis showed a significant increased risk of death, all events (cumulative rate of all-cause mortality, non fatal myocardial infarction, and non-fatal stroke), and CV events (cumulative rate of cardiovascular death, non fatal myocardial infarction and non-fatal stroke). Finally MetS was associated with increased probability of onset of diabetes as well as of hospitalization for heart failure (CHF).Conclusion: Our data suggest that the presence of MetS Syndrome in post-MI patients confers an increased CV risk as well as of onset of diabetes