damage. Nevertheless, the clinical significance of this finding needs to be evaluated in further studies.

Key Words: glucose overload test, early target organ damage, pulse wave velocity

P-515
ATPIII-DEFINED METABOLIC SYNDROME IS ASSOCIATED WITH PREVALENCE OF LV HYPERTROPHY IN WHITE, BUT NOT IN AFRICAN AMERICAN, TREATED HYPERTENSIVES: THE HYPERGEN STUDY
Marcello Chinali, Richard B Devereux, Giovanni de Simone, Jennifer E Liu, Jonathan N Bella, Albert Oberman, Paul Hopkins, Dalane Kitzman, D.C. Rao, Donna Arnett. Medicine, Weill Medical College Of Cornell University, New York, NY.

Metabolic syndrome (MS) is linked to cardiovascular risk. Recently published Adult Treatment Panel III (ATPIII) criteria provide a definition for diagnosis of MS. ATPIII defined non-optimal blood pressure (≥130/85 mmHg) might provide effective partition to identify cardiac abnormalities in the presence of MS.

Echocardiography was performed in 595 non-diabetic MS participants (31.5% men; 59±7.8 years) of the Strong Heart Study. Participants with the MS were divided according to the presence of non-optimal blood pressure (≥130/85 mmHg). Comparison of quintiles of participants with non-optimal blood pressure was used to assess the effect of increasing values of blood pressure on cardiovascular structure and outcome. MS participants with non-optimal blood pressure (n=369; 39% men) were older (61 vs 58 y, p<0.001), with no significant differences in body mass index, heart rate or fasting glucose compared to MS participants with normal blood pressure. After controlling for age and gender, non-optimal blood pressure was associated with higher left ventricular (LV) diameter, LV indexed mass (both p<0.001), with no significant differences in heart rate and plasma insulin or fasting glucose. After controlling for covariates no differences could be found in cardiac structure or function among quintiles of non-optimal blood pressure. Furthermore in Cox regression analysis, within participants with non-optimal blood pressure, higher blood pressure was not associated with a higher rate of CV events.

In the presence of MS, non-optimal blood pressure is related to abnormal LV geometry and function, and associated with increased risk for CV events. When MS is present, blood pressure ≥130/85 mmHg is as effective a marker to identify individuals with cardiac abnormalities as is the traditional definition of hypertension in individuals without the MS, and should lead to more aggressive treatment.

Key Words: Metabolic Syndrome, Echocardiography, Ethnicity

P-516
IMPACT OF BLOOD PRESSURE ON CARDIAC STRUCTURE AND CARDIOVASCULAR OUTCOME IN THE METABOLIC SYNDROME: THE STRONG HEART STUDY
Marcello Chinali, Mary J Roman, Barbara V Howard, Giovanni de Simone, Jonathan N Bella, Jennifer E Liu, Helaine E Resnick, Elisa T Lee, Lyle G Best, Richard B Devereux. Medicine, Weill Medical College Of Cornell University, New York, NY.

Metabolic syndrome (MS) is linked to cardiovascular risk. Adult Treatment Panel III (ATPIII) criteria provide a definition for diagnosis of MS. ATPIII defined non-optimal blood pressure (≥130/85 mmHg) might provide effective partition to identify cardiac abnormalities in the presence of MS.

Aim of the study was to compare the effect of losartan and felodipine on blood pressure (BP) and plasma norepinephrine (pNE) in hypertensive patients with obesity, a condition characterized by increased sympathetic activity.

Fifty-four obese patients (BMI > 30 Kg/m²) with mild to moderate hypertension (DBP evaluated with appropriate size cuff ≥ 95 mmHg < 110 mmHg) aged 32-58 years after a 4 week placebo period were randomized to Losartan 50 mg (n = 27) or to felodipine 5 mg (n = 27) for 16 weeks; after the first 4 weeks of treatment there was a titration with dose doubling in non responder (DBP > 90 mmHg) patients. At the end of the study, the change from baseline was compared between the two groups in terms of changes in BP, pNE and heart rate. This study showed a more effective control of hypertension in the losartan group compared to felodipine.