associated with smoking in parents should be likely to influence children's long-term risk of having lifestyle diseases. The results may also explain some of the apparent effects attributed to passive smoking in families.

Key Words: smoking, health behaviours, lifestyles

P-493
THE INFLUENCE OF URINARY ALBUMIN EXCRETION AND ESTIMATED GLOMERULAR FILTRATION RATE ON BLOOD PRESSURE RESPONSE IN DRUG-TREATED HYPERTENSIVE PATIENTS IN AN ACADEMIC HYPERTENSION CLINIC
Karl Duncan, Preeti Ramappa, Rob Thornburg, Karandeep Singh, Charles Okoye, Navdeep Mann, Lowell Hedquist, Amanda Dudley, John M. Flack, 1Internal Medicine, Wayne State University, Detroit, MI, United States

We reviewed the medical records of 180 consecutive hypertensives (average age = 57.4 years) with at least one follow-up visit receiving care in a small urban, academic hypertension practice. One hundred and nineteen women (66.1%), 61 (33.9%) men, 130 (75.1%) African Americans and 43 (24.9%) whites comprised the study sample. Baseline blood pressure [BP] averaged 166/100 mm Hg while taking an average of 3 antihypertensive medications. Serum creatinine and estimated glomerular filtration rate [EGFR] averaged 1.3 mg/dl and 76.9 ml/min/1.73 m2, respectively. Body mass index [BMI] averaged 33.1 kg/m2. BP response was the average of systolic or diastolic BP at all follow-up visits minus baseline BP as well as by the percent of individuals achieving goal BP according to JNC VI criteria. JNC VI BP goals were < 125/75 for those with proteinuria > 1 gram/24 hours, < 130/85 for persons with diabetes, heart failure and/or renal insufficiency, and < 140/90 mm Hg for all others. Estimated glomerular filtration rate was calculated by the modified Cockcroft-Gault equation. Urinary albumin excretion was estimated from a single spot urine albumin/creatinine ratio. Overall BP fell 17/9 mm Hg while taking an average of 3.3 drugs during follow-up. Eighty-nine patients (58.6%) attained their respective goal BP at an average of 4.1 follow-up visits. BP response was examined above and below an EGFR cut-point of ≤ 48 ml/min/1.73 m2; 77.3% of patients with EGFR > 48 ml/min/1.73 m2 attained goal BP versus only 21% of persons with EGFR ≤ 48 ml/min/1.73 m2. Individuals with EGFR ≤ 48 ml/min/1.73 m2 compared to those with higher GFR required a greater number of medications (4.3 vs 2.8) and follow-up visits (7.8 vs 4.0) to achieve goal BP. After adjustment age, sex, race, and baseline BP, urinary albumin:creatinine ratio (p = 0.024) and EGFR (p = 0.075) were independent predictors of DBP response. DBP response was positively correlated with EGFR but was inversely associated with urinary albumin:creatinine ratio. Conversely, after identical multivariate adjustment neither EGFR or urine:albumin creatinine ratio independently predicted SBP response. These data suggest that readily available clinical markers of renal function influence DBP response to antihypertensive drug therapy, as well as the intensity of antihypertensive therapy and time required to attain JNC VI BP goals.

Key Words: Urine Albumin Excretion, Estimated Glomerular Filtration, Blood Pressure Response

P-494
ETHNIC DIFFERENCES IN THE PREVALENCE OF LEFT VENTRICULAR HYPERTROPHY AMONG HYPERTENSIVES VARY WITH ELECTROCARDIOGRAPHIC CRITERIA
Charles G. Spencer, Gareth Beever, Gregory Y.H. Lip. 1University Department of Medicine, City Hospital, Birmingham, United Kingdom

The prevalence of both hypertension and left ventricular hypertrophy (LVH) varies between ethnic groups, with both being more prevalent in black African/Caribbean populations. We examined the prevalence of electrocardiographic LVH in a mixed population of hypertensive whites, African/Caribbeans and Indo-Asians in Birmingham, England. In 378 hypertensives (Mean age 63(SD 8) years, 75% male) free of overt coronary artery disease the degree of LVH was assessed by the height of the R wave in lead aVL. Sokolow-Lyon, Cornell voltage, Cornell voltage duration product, Cornell voltage/QRSSII, RI-RIII+SIII-SI (Lewis), and RI+SII. These criteria were also adjusted for age and body mass index where published formulate were available.

There were significant differences in RaVL, Sokolow-Lyon and criteria based on limb leads alone between African/Caribbeans and the other ethnic groups. These differences were abolished after adjustment for age and body mass index.

Statistics: Kruskal Wallis test or one-way ANOVA. Units are mm except *mm.mS expressed as mean and (IQR) except age, body mass index (mean and SD)

In conclusion, apparent differences in electrocardiographic LVH between racial groups are dependent on the criteria chosen and may be secondary to differences in body mass index.

Key Words: Left ventricular hypertrophy, Ethnicity, Electrocardiography

P-495
ASSOCIATION OF THE ANGIOTENSIN CONVERTING ENZYME DD GENOTYPE WITH HYPERTENSIVE CRISIS
Gere Sander-Plassmann, Manuela Födinger, Corinna Eberle, Harald Kittler, Michael M. Hirschl, Walter H. Hörll, 1Department of Medicine III, Division of Nephrology and Dialysis, University of Vienna, Vienna, Austria, 2Department of Laboratory Medicine, Division of Endocrinology and Metabolism, University of Vienna, Vienna, Austria, 3Department of Emergency Medicine, University of Vienna, Vienna, Austria

The genetic background of hypertensive crisis is unknown. We examined the association of polymorphisms in genes involved in the renin-angiotensin system, coding for angiotensinogen (AGT 704C→T), angiotensin II receptor 1 (AGTR1 1166A→G), renin (REN 2646G→A), renin-binding protein (RENBP 61T→C), α-adducin (ADD1 1378G→T), β-2-adrenergic receptor (ADRB2 46A→G, 79C→G), and angiotensin I converting enzyme (ACE I/D) with hypertensive crisis. A population based case-control study was performed including 182 patients who were admitted to an emergency department for treatment of hypertensive crisis and in whom secondary hypertension was excluded during follow-up. 182 age- and gender- matched healthy individuals served as control population. Analysis of genetic polymorphisms was performed by polymerase chain reaction and restriction fragment length polymorphism analysis. Deviation of genotype distribution from Hardy-Weiberg equilibrium as well as differences of genotype distribution among patients and controls were tested by Chi-square test. Codominant effects were tested by Armitage test for trend. Among 182 patients the ACE I/D