

LVH Risk Is Higher Among African American Children

BY MIRIAM E. TUCKER

BALTIMORE — In 139 children who had primary hypertension, the risk for left ventricular hypertrophy was even greater for African Americans than for non-African Americans in a cross-sectional review.

The children, aged 3-21 years, after being evaluated for hypertension at one of three tertiary medical centers between 1997 and 2005, were ultimately diagnosed with primary hypertension and underwent echocardiography. The overall prevalence of left ventricular hypertrophy (LVH) was 42% in the entire group. Of the 35 African American children, 21 (60%) had LVH, compared with 38 (37%) of the 104 non-African American children. The difference was statistically significant, Dr. Cozumel S. Pruette said at the annual meeting of the Pediatric Academic Societies.

"African American children with primary hypertension may need more aggressive screening for additional cardiovascular risk factors. However, regardless of race, all children with primary hypertension are deserving of close follow-up due to the high prevalence of LVH that we noted in our study," said Dr. Pruette, a fellow in pediatric nephrology at Johns Hopkins University, Baltimore.

There were no differences within each racial group in mean age, sex, height percentile, or family history of hypertension. Levels of systolic and diastolic blood pressure—assessed by both blood pressure index and 24-hour ambulatory blood pressure monitoring—were not associated with the presence of LVH in African American or non-African American children.

The body mass index z score was significantly higher in both the African American and non-African American groups with LVH (2.0 and 1.8, respectively) than in those two groups without LVH (1.3 and 1.4), but did not differ by race.

Total cholesterol was significantly higher in the African American children with LVH (195 mg/dL) than in those without LVH (151 mg/dL). This difference was not present in non-African American children (163 mg/dL with LVH vs. 166 mg/dL without). However, mean total cholesterol was significantly higher in African American children with LVH than in non-African American children with LVH (195 vs. 163 mg/dL).

"Given our findings, in children referred for primary hypertension, African American children may be at increased cardiovascular risk, due to their increased prevalence of LVH, higher total cholesterol levels and high BMI z scores at the time of initial referral," she concluded.

Asked about the duration of hypertension in the children by session moderator Dr. Douglas M. Silverstein of Louisiana State University in New Orleans, given that "LVH can happen relatively quickly and can also recede very

quickly over a period of months to years," Dr. Pruette said, "We don't have any information on how long these children were hypertensive, and some may be further into their disease state than others. That's something we hope to capture in future studies."

Dr. Pruette stated that she had no relevant financial disclosures. ■



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Dr. Cozumel S. Pruette (left) discusses the findings of her study with session comoderators Dr. Andrew L. Schwaderer (center) and Dr. Douglas M. Silverstein (right).

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