LEFT-VENTRICULAR MASS INDEX IN HYPERTENSIVE CHILDREN AND ADOLESCENTS

Submitted by Stella Stabouli
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OBJECTIVE: Our aim was to investigate differences in left-ventricular mass corrected for height$^{2.7}$ (LVMI) in children and adolescents according to 24-hour ambulatory blood pressure (BP) levels.
METHODS: A total of 67 consecutive children and adolescents aged 5 to 20 years were analyzed. Patients underwent 24-hour ambulatory BP monitoring and echocardiography. LVMI was calculated by using the Devereux equation. All subjects underwent 24-hour ambulatory blood pressure monitoring on a usual school day. Ambulatory hypertension was defined as mean daytime systolic BP and/or diastolic BP at ≥95th percentile for gender and height (n = 22). Prehypertension was defined as mean daytime systolic BP and/or diastolic BP at ≥90th percentile and <95th percentile for gender and height (n = 13). Normotension was defined as mean daytime systolic BP and/or diastolic BP at <90th percentile for gender and height (n = 32).
RESULTS: LVMI was 28.3 ± 9.4 g/m$^{2.7}$ (mean ± SD) in the normotensive subjects (n = 32), whereas it was 35.1 ± 8.7 g/m$^{2.7}$ in the hypertensive subjects (n = 22), a difference that was significantly higher ($P < .001$, Mann-Whitney test). LVMI was 32.4 ± 5.4 g/m$^{2.7}$ in prehypertensive subjects (n = 13), values that tended to be lower than the values of hypertensive subjects ($P = .275$) and significantly higher than the values of normotensive subjects ($P < .05$, Mann-Whitney test).
CONCLUSIONS: Children and adolescents characterized as hypertensive or prehypertensive using the ambulatory blood pressure criteria exhibited significantly higher LVMI than normotensive subjects. Prehypertensive children may be at a similar risk for cardiovascular target-organ damage as that established for hypertensive children.

STRATEGY FOR HIGH-DOSE IMMUNOGLOBULIN THERAPY–RESISTANT KAWASAKI DISEASE: CURRENT STATUS IN JAPAN

Submitted by Hirotaro Ogino
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INTRODUCTION: High-dose intravenous immunoglobulin (IVIg) therapy has decreased the risk for development of coronary arterial lesions (CALs) in Kawasaki disease (KD), whereas patients who show resistance to IVIg have a higher risk for CALs.
OBJECTIVE: The purpose of this study was to determine the risk for CALs in patients with IVIg-resistant KD and to investigate whether an additional therapy might affect its risk, based on the nationwide survey (2003–2004) in Japan.
METHODS: Information from 11 510 children with KD treated with IVIg with the first 9 days of illness was available. The incidence of CALs was compared among 4 groups: group 1 (G1), children who responded to initial IVIg; group 2 (G2), IVIg-resistant patients who received additional IVIg; group 3 (G3), IVIg-resistant patients who received additional prednisolone (PSL); and group 4 (G4), IVIg-resistant patients who received additional IVIg plus PSL. CALs were assessed on the 30th day of illness.
RESULTS: Among 11510 cases, 2229 patients (19.4%) were resistant to initial IVIg treatment and received additional therapy. The incidence of CALs was significantly lower in children who responded to IVIg (G1, n = 9281) than in those with IVIg resistance (1.87% and 11.03%, respectively). In each of the additional therapy groups, the incidences of CALs were as follows: G2 (n = 1108), 6.68%; G3 (n = 93), 9.68%; and G4 (n = 135), 22.22%. Thus, the risk for development of CALs was significantly higher for patients in G4 than those in G1 and G2.
CONCLUSIONS: Additional therapy including PSL may increase the risk for CALs; however, several selection biases, such as more severe cases in G3 and G4, might have affected the results.

Community Pediatrics

THE AMERICAN ACADEMY OF PEDIATRICS I-CATCH PROGRAM: IMPROVING CHILDREN'S ACCESS TO COMMUNITY-BASED CARE IN RESOURCE-LIMITED SETTINGS

Submitted by Anna Mandalakas
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