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On the Cover

What's the Diagnosis? This image is from a four chamber view of a 12 year old boy undergoing peritoneal dialysis. The left ventricle (LV) is dilated (end diastolic diameter 55 mm) and the interventricular septum and left ventricular posterior wall are hypertrophic. Left ventricular hypertrophy (LVH) is both an independent risk factor and an intermediate endpoint of cardiovascular morbidity in patients with chronic kidney disease. However, its definition is a challenge in children due to the substantial differences of LV mass distribution when using different pediatric reference charts, which results in a marked discrepancy in estimated LVH prevalence. The International Pediatric Peritoneal Dialysis Network database provides a unique opportunity to re-assess and compare the effect of different indexation methods on the calculated prevalence of LVH. Using height-adjusted LVMI reference data, LVH is highly prevalent but less common (48%) than previously diagnosed (65%) in children on PD. Hypertension, fluid overload and hyperparathyroidism appear as the most important determinants of LVH in dialyzed children. Notably, all these factors are potentially modifiable by therapeutic efforts. (Image provided by Sevcan A. Bakkaloglu, Dagmara Borzych, Gulendam Kocak, Bradley A. Warady and Franz Schaefer).