

Pediatric kidney disease tied to abnormal carotid arteries

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Ultrasound measurements of carotid intima-media thickness are significantly elevated among children with chronic kidney disease compared with healthy controls, according to a study published online Sept. 13 in the *Clinical Journal of the American Society of Nephrology*.

(HealthDay)—Ultrasound measurements of carotid intima-media thickness (cIMT) are significantly elevated among children with chronic kidney disease (CKD) compared with healthy controls, according to a study published online Sept. 13 in the *Clinical Journal of the American Society of Nephrology*.

Tammy M. Brady, M.D., from Johns Hopkins University in Baltimore, and colleagues analyzed data from 101 children aged 2 to 18 years with mild-to-moderate CKD (median glomerular filtration rate [GFR], 42.9 ml/min/1.73 m²) enrolled in the <u>Chronic Kidney Disease</u> in Children



cohort study and 97 healthy controls followed for 12 months. Overall cIMT measurement was calculated from an average of six standardized B-mode ultrasound measurements.

The researchers found that median cIMT in children with CKD was 0.43 mm (interquartile range, 0.38 to 0.48), which was significantly greater than that in healthy controls (0.41 mm) and remained larger after multivariable adjustment. Dyslipidemia and hypertension were associated with 0.05 mm (95 percent confidence interval [CI], 0.01 to 0.08) and 0.04 mm (95 percent CI, 0.003 to 0.08) greater mean cIMT, respectively. cIMT was not associated with body mass index, CKD etiology, GFR, birth weight, pubertal status, calcium, phosphorus, sex, or race.

"cIMT is significantly elevated among children with CKD, as is the prevalence of other <u>cardiovascular risk factors</u>," the authors write. "Of these risk factors, hypertension and dyslipidemia are significantly associated with increased cIMT."

More information: Abstract

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