Higher eGFR at dialysis initiation tied to lower survival in children

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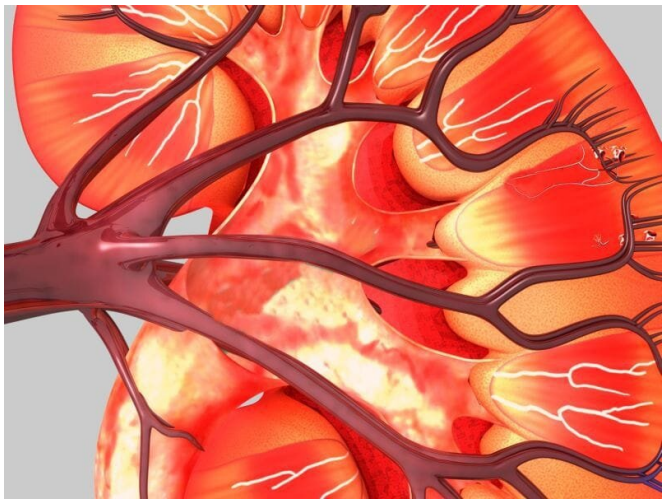

(HealthDay)—In children with end-stage renal disease (ESRD), a higher estimated glomerular filtration rate (eGFR) at dialysis initiation is associated with lower survival, particularly among children whose initial treatment method is hemodialysis, according to a study published online July 18 in the *Journal of the American Society of Nephrology*.

Erica Winnicki, M.D., from University of California in San Francisco, and colleagues used data from the U.S. Renal Data System to identify 15,170 pediatric patients (aged 1 to 18 years) who started dialysis between 1995 and 2015. Survival was assessed based on eGFR at the time of dialysis initiation, which was categorized as higher (>10 mL/min per 1.73 m²) or lower eGFR (?10 mL/min per 1.73 m²).

The researchers found that 29 percent of children had higher eGFR at dialysis initiation (median eGFR, 12.8 mL/min per 1.73 m²), and this number increased steadily over time from approximately 17 percent in 1995 to 41 percent in 2015. Those with a higher eGFR at dialysis initiation were more often white, female, underweight, or obese and were more likely to have glomerulonephritis as the cause of ESRD compared with children with a lower eGFR (median eGFR, 6.5 mL/min per 1.73 m²). Among children with a higher eGFR, the risk for death was 1.36 times higher (95 percent confidence interval, 1.24 to 1.50). There was a significant difference in timing of dialysis and survival by treatment modality (hemodialysis versus peritoneal dialysis). The association between timing of dialysis and survival was stronger among children initially treated with hemodialysis versus peritoneal dialysis (hazard ratios, 1.56 [95 percent confidence interval, 1.39 to 1.75] versus 1.07 [95 percent confidence interval, 0.91 to 1.25]).

"Based on our findings, we conclude that while the decision to initiate dialysis should be based on the individual patient, consideration of delaying dialysis initiation in asymptomatic children may be prudent," the authors write.

One author disclosed financial ties to GlaxoSmithKline.

More information: Abstract/Full Text (subscription or payment may be required)
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