Findings

Diet Quality Affects Risk of eGFR Decline in Urban Patients

In a diverse urban population, low dietary quality is associated with an increased risk of declining kidney function among adults with hypertension, reports a study in the *Journal of Renal Nutrition*.

The study included data on 1534 participants in the "Healthy Aging in Neighborhoods of Diversity across the Life Span" (HANDLS) study: African Americans and whites, aged 30 to 64 years, with a baseline estimated glomerular filtration rate (eGFR) of 60 mL/min/1.73 m^2 or higher. Mean age was 48 years; 59% of participants were African American.

A Dietary Approaches to Stop Hypertension (DASH) score, based on nine target nutrients, was calculated for each participant. Diet score was evaluated for association with rapid decline in kidney function (greater than 3 mL/min/1.73 m^2 per year), incident chronic kidney disease, and eGFR decline greater than 25%.

Accordance with the DASH diet was "minimal"—median score 1.5 on a 0–8 scale. At a median 5 years' follow-up, rapid eGFR decline occurred in 13.4% of patients overall, 15.2% of those with a DASH score of 1 or less, and 12.0% with a DASH score greater than 1. On adjusted analysis, the association with rapid eGFR decline was significant only for subjects with hypertension: risk ratio 1.68. The DASH score was unrelated to incident chronic kidney disease or eGFR decline greater than 25%.

Previous studies have linked a healthier diet to a lower risk of kidney disease outcomes, but none of these studies have focused on urban populations. The new results show that a low DASH score is associated with an increased risk of rapid decline in eGFR, among urban adults with hypertension. The investigators conclude: "[D]iet quality may play an important role in determining kidney outcomes among individuals with risk factors for CKD" [Liu Y, et al. Dietary habits and risk of kidney function decline in an urban population. *J Renal Nutr* 2017; 27: 6–25].

Mortality Differs by Reason for Starting Dialysis

Among patients initiating dialysis, mortality is higher for those with a primary indication of volume overload or hypertension, suggests a study in the *American Journal of Kidney Diseases*.

The retrospective analysis included 461 patients who initiated hemodialysis or peritoneal dialysis (24 patients) from 2004 through 2012 at 14 facilities. All-cause mortality was analyzed for patients with differing primary indications for dialysis initiation: laboratory evidence of kidney function decline (reference category), uremic symptoms, volume overload, hypertension, or "other/unknown."

At a median follow-up of 2.4 years, 40% percent of patients had died. Crude mortality was 21.7 per 100 patient-years for patients with volume overload or hypertension, compared to 10.0 for those with kidney function decline, 12.7 with uremic symptoms, and 12.2 for the "other/unknown" category.

On adjusted analysis, volume overload or hypertension was the only category associated with increased mortality: hazard ratio 1.69. Among patients using a permanent dialysis access, the risk of death was eight times higher for those in the volume overload/hypertension group, compared to those with decreased kidney function.

The results suggest increased mortality among patients initiating dialysis due to volume overload, relative to those with laboratory evidence of kidney function decline. The researchers write: "Improved understanding of symptoms and clinical decision making at the time of the transition to dialysis therapy has the potential to lead to innovation in identifying the optimal timing for the initiation of maintenance dialysis therapy" [Rivara MB, et al. Indication for dialysis initiation and mortality in patients with chronic kidney failure: a retrospective cohort study. *Am J Kidney Dis* 2017; 69:41–50].