Estimated GFR, albuminuria, and complications of chronic kidney disease.

Higher levels of albuminuria associate with increased risk for adverse outcomes independent of estimated GFR (eGFR), but whether albuminuria also associates with concurrent complications specific to chronic kidney disease (CKD) is unknown. Here, we assessed the association of spot albumin-to-creatinine ratio with anemia, acidosis, hyperphosphatemia, hypoalbuminemia, hyperparathyroidism, and hypertension among 30,528 adult participants in NHANES 1988-1994 and 1999-2006. After multivariable adjustment including eGFR, higher albumin-to-creatinine ratios associated with anemia, acidosis, hypoalbuminemia, hyperparathyroidism, and hypertension but only weakly associated with acidosis and anemia. Furthermore, the associations between albumin-to-creatinine ratio and both anemia and acidosis were not consistent across eGFR strata. Higher albumin-to-creatinine ratio levels did not associate with hyperphosphatemia. Lower eGFR associated with higher prevalence ratios for all complications, and these associations were stronger than those observed for the albumin-to-creatinine ratio; after multivariable adjustment, however, the associations between eGFR and both hypoalbuminemia and hypertension were NS. In conclusion, albuminuria and eGFR differentially associate with complications of CKD.