SIGNIFICANCE STATEMENT

Kidney biopsy remains an important tool in the diagnosis and management of acute kidney disease and CKD. Kidney histopathology may provide both diagnostic and prognostic information. Whether histopathologic lesions provide prognostic information independent of clinical information has not been evaluated in detail. In this study of 676 individuals undergoing native kidney biopsy, the authors found that greater severity of interstitial fibrosis and tubular atrophy, arterial and arteriolar sclerosis, and global glomerulosclerosis were independent predictors of future kidney failure, even after adjusting for confounders, including eGFR and proteinuria. A chronicity score derived from the sum of semiquantitative assessments of chronic histopathologic lesions was also independently associated with kidney failure, and could be incorporated into kidney pathology reports to provide clinicians useful prognostic information.