SIGNIFICANCE STATEMENT

Although reduction of proteinuria by various interventions has been shown to be nephroprotective in adults with CKD, pediatric data on the relationship between pharmacologic decreases in proteinuria and long-term renal survival are scarce. This *post hoc* analysis of the ESCAPE Trial assesses the association between the initial antiproteinuric effect of standardized ACE inhibition and subsequent renal disease progression in 280 children with CKD. The results indicate that a higher initial proteinuria reduction with ACE inhibition is independently associated with long-term preservation of renal function in children with CKD. This finding suggests that proteinuria lowering is also an important target in the management of pediatric CKD.