Duration of Oliguria and Anuria as Predictors of Chronic Renal Damage in Post-Diarrheal Hemolytic Uremic Syndrome

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Precise long-term retrospective studies have described renal sequelae in 30%-50% of post-diarrheal hemolytic uremic syndrome survivors. However, the ability to predict the likelihood of chronic renal damage at the time of hospital discharge is limited. We studied 357 children who survived the acute episode without end-stage renal disease (ESRD) at the time of discharge. Of the 357 patients surveyed, 159 individuals had at least one year of follow-up data. Of these 90 individuals were identified as having at least one day of clinical oliguria, with 69 individuals having at least one day of anuria. Regression analysis of days of oliguria/anuria to percentage of patients with chronic renal sequelae reveals a strong relationship for the prediction of low GFR (R² = 0.92 for oliguria and 0.99 for anuria). The combination of low GFR and overt proteinuria, a subset of patients particularly at risk for chronic renal failure also indicates a strong relationship with days of oliguria/anuria (R² = 0.97 for oliguria and 0.99 for anuria). Therefore, in our HUS population, there appears to be a strong correlation between days of oliguria/anuria and incidence of chronic renal sequelae.