

HEPATITIS C INCREASES PROGRESSION OF CKD IN BIOPSY PROVEN GLOMERULOPATHIES

Lama Nouredine, Sohail Usman, Sharon Moe, Division of
Nephrology, Indiana University, Indianapolis, Indiana.

Hep C is associated with glomerulonephritis, and patients (pts) who have Hep C are at increased risk for albuminuria. We have previously shown that the likelihood of developing CKD does not increase for pts who are Hep C positive, but it is not known if Hepatitis C increases progression of existing CKD.

To determine whether Hep C infection is associated with increased rate of progression of CKD, or ESRD or death in pts with biopsy-proven glomerulopathy, we performed retrospective cross-sectional and longitudinal analyses. We reviewed all renal biopsy reports (n = 379) between 1/1/2001 and 12/31/2004 and reviewed electronic medical records for data. Subjects with at least 1 follow-up creatinine (Cr), without acute renal failure, non transplant, and not on dialysis at the time of biopsy were included. In the final cohort (n = 111), there were no significant differences in age, sex, use of ACE-I or ARB, proteinuria, hemoglobin, mean arterial blood pressure, HgbA1c, baseline Cr, change in Cr over time, number of follow-up clinic (liver or renal) appointments, and number of Cr measures in patients who were Hep C positive, Hep C negative, or not tested for Hep C.

The results demonstrate that Hep C positive pts had an odds ratio of 2 for developing ESRD or death. By multivariate analysis, only Hep C positive status and age predicted death or ESRD ($p = 0.02$). By repeated measures analysis, the change in creatinine/change in days was also greater in patients with Hep C ($p < 0.01$).

		HepC pos	HepC neg	HepC untested
ESRD/Death	No	7 (30.4%)	36 (52.9%)	17 (85%)
P=0.002	Yes	16 (69.6%)	32 (47.1%)	3 (15%)

In summary, despite similar baseline Cr at the time of biopsy, having Hep C accelerates the decline in kidney function and increases the risk of developing ESRD or death. The mechanism by which this occurs requires further elucidation.