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Mortality, Hospitalization, and Quality of Life among Patients with Hepatitis C Infection on Hemodialysis

David A. Goodkin^{*}, Brian Bieber^{*}, Michel Jadoul[†], Paul Martin[‡], Eiichiro Kanda[§], Ronald L. Pisoni^{*}

[+](#) Author Affiliations

Correspondence:

Dr. David A. Goodkin, 3807 134th Avenue NE, Bellevue, WA 98005. Email: davidagoodkin@comcast.net

Abstract

Background and objectives Hepatitis C virus (HCV) infection is widely prevalent among patients on hemodialysis (HD), but very rarely treated. The aim of our study is to evaluate the burdens of HCV suffered by patients on HD.

Design, setting, participants, & measurements The Dialysis Outcomes and Practice Patterns Study is an international, prospective, cohort study of patients on HD. We reviewed the HCV status of 76,689 adults enrolled between 1996 and 2015. We compared HCV-positive (HCV+) with HCV-negative (HCV-) patients for risk of mortality, hospitalization, decline in hemoglobin concentration <8.5 g/dL, and red blood cell transfusion. We also compared health-related quality of life scores using the Kidney Disease Quality of Life instrument and the Center for Epidemiologic Studies Short Depression Scale. We adjusted for age, sex, race, years on dialysis, 14 comorbid conditions (including hepatitis B infection), and serum albumin, phosphorus, and creatinine concentrations.

Results A total of 7.5% of patients were HCV+ at enrollment. Serum concentrations of alanine aminotransferase and aspartate aminotransferase were not markedly elevated in HCV+ patients on HD; the mean concentrations were only 22.6 and 21.8 U/L, respectively. Median follow-up was 1.4 years. Case-mix adjusted hazard ratios (95% confidence intervals) for HCV+ versus HCV- patients were 1.12 (1.05 to 1.20) for all-cause mortality, 5.90 (3.67 to 9.50) for hepatic-related mortality, 1.09 (1.04 to 1.13) for all-cause hospitalization, and 4.40 (3.14 to 6.15) for hepatic-related hospitalization. Quality of life measures indicated significantly worse scores for physical function, pain, vitality, mental health, depression, pruritus, and anorexia among HCV+ patients. The adjusted hazard ratio for transfusion was 1.36 (95% CI, 1.20 to 1.55) and incidence of hemoglobin concentration <8.5 g/dL was 1.12 (95% CI, 1.03 to 1.21). Only 1.5% of HCV+ patients received antiviral medication.

Conclusions HCV infection among patients on HD is associated with higher risk of death, hospitalization, and anemic complications, and worse quality of life scores. Internationally, HCV infection is almost never treated in patients on HD. Our data provide a rationale for more frequent treatment of HCV in this population.

Hepatitis C mortality quality of life anemia renal dialysis Adult
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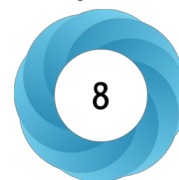
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