



Mortality is not increased in SARS-CoV-2 infected persons with hepatitis C virus infection

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Abstract

Background: Impact of SARS-CoV-2 infection upon hospitalization, intensive care unit (ICU) admissions and mortality in persons with hepatitis C virus (HCV) infection is unknown.

Methods: We used the Electronically Retrieved Cohort of HCV infected Veterans (ERCHIVES) database to determine the impact of HCV infection upon the rates of acute care hospitalization, ICU admission and all-cause mortality. We identified Veterans with chronic HCV infection and propensity score matched controls without HCV in ERCHIVES. We excluded those with HIV or hepatitis B virus coinfection.

Results: We identified 975 HCV+ and 975 propensity score matched HCV- persons with SARS-CoV-2 infection. Mean FIB-4 score (\pm SD) was higher in those with HCV (1.9 ± 2.1 vs 1.2 ± 0.9 ; $P < .0001$) and a larger proportion of those with HCV had cirrhosis (8.1% vs 1.4%; $P < .0001$). A larger proportion of HCV+ were hospitalized compared to HCV- (24.0% vs 18.3%; $P = .002$); however, those requiring ICU care and mortality were also similar in both groups (6.6% vs 6.5%; $P = .9$). Among those with FIB-4 score of 1.45-3.25, hospitalization rate/1000-person-years was 41.4 among HCV+ and 20.2 among HCV-, while among those with a FIB-4 > 3.25 , the rate- was 9.4 and 0.6 ($P < .0001$). There was no difference in all-cause mortality by age, gender, FIB-4 score, number of comorbidities or treatment with remdesivir and/or systemic corticosteroids.

Conclusions: HCV+ persons with SARS-CoV-2 infection are more likely to be admitted to a hospital. The hospitalization rate also increased with higher FIB-4

score. However, admission to an ICU and mortality are not different between those with and without HCV infection.

Keywords: COVID-19; ERCHIVES; SARS-CoV-2; hepatitis C virus; hospitalization; liver fibrosis; mortality.