Risky Behaviors Raise the Risk of Death as Much as Hepatitis C

Among those with hep C, factors such as smoking and unhealthy diets are responsible for perhaps half their excess mortality risk.

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Among people with hepatitis C virus (HCV), unhealthy behaviors such as smoking or eating unhealthy diets apparently contribute as much to their excess risk of death as the virus itself. This finding points to a major deficit in the research into the care and treatment of the hep C population: a lack of proper attention to lifestyle-oriented risk factors that cannot simply be addressed by curing the virus.

Publishing their findings in the journal Hepatology, researchers analyzed data from the 1999 to 2010 annual U.S. National Health and Nutritional Examination Surveys (NHANES), which provided detailed information on what are known as health risk behaviors (HRBs) as well as hep C status. They looked specifically at five major HRBs, including alcohol use, cigarette smoking, physical inactivity, unhealthy diet and illicit drug use.

The researchers distinguished between current and past HRBs. They categorized current excess alcohol use as more than two drinks per day during the 12 months preceding the survey interview. The definition of drug use shifted based on the questions on that topic as the survey evolved over time but overall included injection drug use, cocaine, heroin, methamphetamine and other street drugs. Unhealthy eating was defined as less than three servings of fruits and vegetables during the 24-hour period preceding the survey. Those who ate at least three servings of such foods but who did not eat at least three different kinds of fruits and vegetables were also considered unhealthy eaters. Current physical activity was defined as a lack of routine moderate or vigorous physical activity.

A total of 29,130 survey participants met the researchers' criteria for inclusion in the study, 1,631 (5.6 percent) of whom were excluded because their hep C status was not registered. An additional 31 (0.1 percent) people were excluded because the researchers could not determine whether they were still living as of December 2011.

Consequently, the final study sample included 27,468 people, of whom 363 (1.3 percent) had hep C.

Compared with those who did not have the virus, those with hep C were more likely to be older, male, Black, living in poverty and to have no more than a high school education.

After an average 6.2 years of follow-up since their first interview, 2,599 (9.5 percent) of the study cohort had died, including 43 people with hep C.

There were missing data on major factors considered in the final analysis among zero to 6 percent of the participants, depending on the factor. There were two exceptions, however, including the fact that 25.5 percent of the participants had missing data on illicit drug use and 38.8 percent had missing data on HIV status.

Those with hep C were more likely to report HRBs than those without the virus, especially when it came to current HRBs. Compared with HCV-negative participants, HCV-positive cohort members, were 2.3 times more likely to report current excess alcohol use (18.7 percent of those with hep C versus 8.3 percent of those without hep C), 2.3 times more likely to report currently smoking cigarettes (63.8 percent versus 28.2 percent), 93 times more likely to report currently using injection drugs (9.3 percent versus 0.1 percent) and 3.4 times more likely to report current non-injection drug use (16.2 percent versus 4.7 percent).

After adjusting the data about the 27,468 participants to account for differences in sociodemographic factors, the researchers found that those with hep C had a 2.36-fold higher risk of death, or mortality risk ratio (MRR), than those without the virus. Adjusting the data for sociodemographic factors as well as for medical conditions other than hep C reduced that first MRR by 0.7 percent, to 2.35. Adjusting for sociodemographic factors as well as former HRBs reduced the MRR to 2.27.

Adjusting for sociodemographic factors and current HRBs reduced the MRR by 51.5 percent, to 1.66. In other words, current unhealthy behaviors were apparently responsible for half of the excess death risk among the hep C population in the study.

Current cigarette smoking was the HRB that lowered the MRR the most when the researchers adjusted the data for such factors, responsible for 30 percent of the reduction in the MRR. In other words, quitting smoking likely provides a very significant reduction in the risk of death among people with hep C.

The researchers estimated that the 2.4-fold excess death rate for those with hep C likely means that the hep C population in the United States experiences about 39,000 excess deaths per year compared with the general population.

The study authors expressed concern about the apparently thin amount of published scientific research concerning reducing HRBs among those with hep C.

“Overall this study cautions that, advancements in antiviral therapy aside, a sizeable excess mortality risk is likely to persist for individuals with past/present [hep C] unless more attention is paid to tackling coexisting HRBs,” the study authors wrote.

To read the study abstract, click here.

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