African Americans and Hepatitis C

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Forward

There are clear differences in terms of chronicity, and disease progression, among different ethnic and racial groups with regard to hepatitis C. Nowhere are these differences more pronounced than in the African American population when compared with other racial or ethnic groups with hepatitis C. For instance, African Americans are more likely to have been exposed to HCV and are less likely to resolve acute HCV infection compared to other racial/ethnic groups. There are some studies that suggest that African Americans may have slower natural HCV disease progression. The reasons for these differences are largely unknown because African Americans have not been adequately represented in clinical trials. There have been two studies, however, that have shed some light on these important questions—Virahep-C sponsored by the National Institutes of Health and Genentech and recent findings from studies of a variation of a certain gene called IL28B.

HCV Infection in African Americans

African Americans are more than twice as likely to have been infected with HCV than Caucasians. It is estimated that 3.5 million Americans are infected with hepatitis C. African Americans are twice as likely to be infected with hepatitis compared to the general population of the United States. The reasons for the higher rate of infections are not completely understood, but there is some speculation that African Americans are at greater risk for contracting HCV through occupational exposure (an estimated 3 million African Americans are employed as health care professionals), blood transfusions (which may be required to treat sickle cell anemia, which mostly affects African Americans), or through a documented higher prevalence of injection drug use. In addition, various studies have found that African Americans as a group have less access to information on HCV and preventative medical care.

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Information on Hepatitis
HCV diagnosis and prevention measures require access to information about hepatitis C. It is clear that information about HCV has not effectively reached the majority of African Americans in this country. A public awareness poll conducted by the American Liver Foundation found that compared with the general public, African Americans are not as aware of the risk factors or symptoms of hepatitis C. In addition, a media analysis discovered that there has been little news coverage of hepatitis C in the African American press, which is a trusted resource and plays a critical role in informing the African American community.

Chronic HCV Infection among African Americans
In the general population, 55% to 85% of individuals exposed to HCV become chronically infected. This rate is much higher in African Americans (87 to 95%) than in Caucasians (66-67%). Part of the reason for the higher rate of chronic infection in African Americans can be attributed to the lack of a certain genetic variation in the IL28B gene – part of our body’s natural immune system.

HCV Genotype
In the United States, genotype 1 accounts for approximately 70-75% of all HCV infections, followed by genotypes 2 and 3, which together account for approximately 30% of infections. In the African American population, however, genotype 1 accounts for 91% of infections – compared to 67% in Caucasians.

Natural Disease Progression
The rate of natural disease progression in African Americans has been widely debated. Two retrospective studies (based on medical records, looking backward in time at events that happened in the past) have found that there are differences in the natural disease progression in African Americans compared to other groups, but the studies have also raised many questions. Dr. Thelma E. Wiley and colleagues reviewed the medical records of 355 people infected with HCV from 1996 through 1999, of whom approximately 32% were African Americans. The participants in the study were similar with regard to the mode of transmission and HCV RNA (viral load) levels, but the African Americans were older and had been infected with HCV for longer periods compared with the non-African American participants. Levels of alanine aminotransferase (ALT, an enzyme released when the membranes of liver cells break down causing inflammation and cell death) are frequently lower in African Americans than in the general population, as was seen in this study population. Genotype 1 was more prevalent among African Americans (88% versus 67%) than the other groups in this study, which is consistent with recognized patterns.

The authors found that the rate of natural HCV disease progression was significantly lower in African Americans compared with Caucasians. After the second decade of HCV infection, 0% of African Americans in the study progressed to stage 4 cirrhosis compared with 26% of whites; in the third decade, the respective rates were 18% versus 31%, and in the fourth decade the rates were 33% versus 47%. The authors concluded that HCV infection in African Americans progresses at a slower rate than in non-African Americans. Even though similar data were reported by researchers from the University of Southern California at Los Angeles, it is difficult to draw concrete conclusions, since both studies were retrospective, which could bias the results.

However, even allowing for potential bias, these findings suggest that African Americans may progress to cirrhosis more slowly than Caucasians. These results need to be confirmed by larger prospective studies. And if these data are confirmed by future research, the reasons for the difference in disease progression may also be elucidated.

Treatment
In the past, African Americans did not achieve cure rates as high as other races. Now the medications to treat hepatitis C can cure everyone with hepatitis at rates of more than 90%.

For more information about hepatitis C medications see page 3.
Related publications:

- HCV Medications Blog
  http://hepatitismedications.hcvadvocate.org/

- HCV Genotype, Quasispecies and Subtype

- HCV Advocate Drug Pipeline

For more information

- Centers for Disease Control and Prevention
  www.cdc.gov/Hepatitis

- National Digestive Diseases Information Clearinghouse (NDDIC)

- Veterans Administration:
  http://www.hepatitis.va.gov/as a standard one

- InQuick Reference Guide - FDA Approved Medications
  http://hcvadvocate.org/treatment/drug-pipeline/

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