

Medical Writers' Circle

a series of articles

written by medical
professionals about
the management
and treatment of

Hepatitis C

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Chronic Hepatitis C in the Veteran Population

Hepatitis C virus (HCV) infection is more common among veterans than the general population. On March 17, 1999, HCV Surveillance Day at the VA, over 26,000 veterans gave their consent and were tested for HCV using an antibody assay. The findings of that day have led the US Department of Veterans Affairs (DVA) to estimate that at least 6-8% of veterans are infected with HCV. During the fiscal years 1999 and 2000, the DVA screened over half a million veterans and identified about 77,000 veterans with chronic hepatitis C. As a result, the DVA has identified and treated more persons with hepatitis C than any other health care organization in the world. In a recent study of veterans with blood tests performed in an outpatient setting in Northern California, 17.7% tested positive; 89.2% of these individuals were found to have active infection with the virus detected in their blood [1]. The prevalence of HCV was even higher in certain groups of veterans and was as high as 40% among homeless veterans [2]. All these studies were performed on veterans receiving care from VA medical centers, including some hospitalized veterans. These facts further skewed the study population and therefore may not be generalizable to the entire veteran population. In 2001, only 4.2 million of

the estimated 25.3 million veterans received care from VA medical centers around the country. There is a large-scale ongoing study funded by the DVA to determine the "true" incidence of HCV among all veterans. In addition, the VA is establishing an HCV registry, which will be implemented by the end of 2002, to monitor the extent of the problem and progress in treating veterans with chronic hepatitis C. These findings will impact health policy in terms of allocation of resources to care for all infected veterans and the future healthcare burden on the VA health care system as the extent of liver disease progresses over time.

There are several possible explanations for the notably higher incidence of HCV among veterans. Accidental blood exposures and blood transfusions prior to 1991 undoubtedly have played a role. Chronic hepatitis C is more common among men, and many veterans are also in the same age group as those in the general population who have the highest prevalence of HCV. The population-based Third National Health and Nutrition Examination Survey in 1988-1994 found that 65% of all HCV-positive persons in the general population were 30 to 49 years old at the time of the study [3]. In our study of 8,558 veterans tested at the VA Palo Alto Health Care System in Northern California over a 6-year period (1992-1998), the mean

age of HCV positive veterans was 48.4 years (range 28-89 years), and 60% were between 41 and 50 years of age [4]. On the other hand, the prevalence of HCV infection was much lower among active-duty military personnel, and was no higher than in the general population.

Many of the infected veterans unfortunately have other co-existing conditions that can interfere with the current FDA-approved treatment regimen for HCV. Overall response rate to current therapy also appears to be poor. A recently published study from a VA hospital in Missouri found that treatment so far has had minimal impact on the veteran population. One of the major impediments to care was failure to keep appointments to be evaluated for treatment [5]. Among those who came to the clinic, only about a third of those evaluated for anti-viral therapy were eventually treated because the majority of patients had conditions that excluded them from treatment. Major reasons for not receiving anti-viral therapy were psychiatric disorders (20.9%), undecided (16.7%) and active alcohol use (13.7%). The sustained response rate to combination therapy (interferon and ribavirin) was only 13.8%, far below the 30%-40% that has been reported in the non-veteran population. The authors speculated that the lower response rate was due to the fact that veterans with HCV tended to

be male, older than 40, infected with genotype 1, and had advanced liver disease, factors that are all associated with poor response to current therapy. However, another study of non-veterans also reported a similarly low overall response rate (13%) in patients treated with interferon (alone or in combination with ribavirin) [6]. We found a somewhat better response rate than these two studies but it was still below those reported in clinical trials.

Psychiatric side effects of interferon are common and include

these alcoholic-HCV patients was more advanced and was associated with more frequent hospitalizations than in alcoholic patients without HCV infection. Several other studies also found a synergistic damaging effect of alcohol abuse on liver disease from chronic hepatitis C. There is also evidence suggesting that the response rate to interferon therapy is reduced in patients who have recently consumed alcohol or are concurrently consuming alcohol during treatment. These observations emphasize the need to aggressively treat

Non-compliance with clinic appointments, active substance use and/or unstable psychiatric disease are major impediments to beginning anti-viral therapy. To improve the care of veterans with chronic HCV, we need to enhance the awareness of HCV in this population so that they will understand the importance of keeping their clinic appointments and receive proper counseling and intervention. The DVA is also reaching out to other veterans who are currently not receiving care from VA medical facilities by setting up

VA patient population appears to be an objective that can and will be achieved. ■

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depression, irritability, insomnia and anxiety [7]. Major co-existing conditions that render veterans poor candidates for interferon-based therapy are psychiatric disorders and recent or active substance use. We found about two-thirds of veterans who were referred to our Liver Clinic for evaluation have one or more major contraindication(s) to interferon therapy related to current or recent substance (including alcohol) use and/or unstable psychiatric problems, and these findings correlated poorly with diagnoses documented in the medical record [8]. Patients with pre-existing psychiatric disorders have a lower response rate to interferon therapy than those without psychiatric disorders [9]. However, patients with co-existing psychiatric disorders can be treated successfully with anti-viral therapy, provided they are monitored closely. Another major issue among veterans with chronic hepatitis C is alcohol use. In a VA Study of 288 patients with various stages of alcoholic hepatitis, almost one in five tested positive for HCV [10]; liver injury in

alcoholism in patients with chronic hepatitis C.

Liver disease seems to be more severe among veterans with chronic hepatitis C. In the study from Missouri, 47.8% have advanced fibrosis (stage 3) or cirrhosis (stage 4) among those who have a liver biopsy [5]. We have made similar observations at our medical center, with > 50% of veterans with abnormal liver function tests having grade 3 or 4 inflammation and >40% with advanced fibrosis (stage 3 or 4) on liver biopsy [unpublished data]. Liver disease from chronic HCV may be more severe among veterans because of co-factors such as frequent heavy alcohol use. However, at least one investigator found no difference in the severity of liver disease between veterans and non-veterans.

In summary, chronic hepatitis C is a major problem in the veteran population. Not only does liver disease tend to be more severe and the overall response rate to therapy poor, but most veterans are not candidates for treatment with current anti-viral therapy.

HCV screening clinics at veteran centers. Due to the large overlay of psychiatric and substance abuse issues, alcohol and drug counseling in addition to a thorough psychiatric evaluation should be part of the routine care of these veterans. Compliance with prescribed medications was found to be one of the major determinants of a favorable response to anti-viral therapy. Aggressive management of side effects of anti-viral therapy, especially psychiatric ones, is essential to improving drug compliance and is best achieved with a multidisciplinary team approach. Veterans with HCV would also benefit from a new therapy with a better-tolerated side-effect profile and improved efficacy. The DVA has developed HCV treatment guidelines for the VA setting. These guidelines, which are posted on the Internet, will be updated periodically to incorporate new information as newer therapeutic modalities become available. With the advent of new and improved therapy and with successful application of the multidisciplinary approach, the control of HCV in the