

Viral hepatitis and its acute and chronic complications continue to pose significant threats to the readiness of military personnel. Knowledge about the specific viral agents and their routes of transmission are important in developing prevention strategies. A recent analysis of hepatitis in the US Navy for the period 1975–1984 is reviewed. In order to better characterize the risk of viral hepatitis among US Air Force personnel, a comprehensive review of inpatient and quarters data for hepatitis A, B and ‘non-A, non-B’ were reviewed from Air Force medical treatment facilities worldwide for the period 1980–1989. Following a discussion of the study methodology, preliminary data and hepatitis type-specific demographic risk variables are discussed. Preliminary results from a hepatitis serosurvey (A, B and C antibody with use of a supplemental validating assay) of the subset of the study cohort who are currently on active duty are briefly reviewed.

Keywords: Viral hepatitis; military personnel; serosurvey

INTRODUCTION

In a study of viral hepatitis in US Navy members in 1975–1984, Hyams et al. concluded that (1) the highest incidence of acute viral hepatitis occurred in the youngest age groups, ≤24 years, (2) that a previous hospitalization for drug abuse or a concurrent discharge diagnosis of a sexually transmitted disease were strongly associated with the risk of acute hepatitis, and (3) that the observed decline in the incidence of viral hepatitis during the 10-year period may have been due to decreasing drug abuse. The researchers concluded that, based on these findings, immunization of high-risk groups in the younger age groups, drug use were also abstracted. Patient records were matched with Air Force personnel records to obtain information regarding the presence/absence and number of overseas assignments, flying status and occupation.

In order to study the prevalence and risk factors for acquisition of the newly described hepatitis C a serosurvey was conducted. Members of the study cohort who remained on active duty were asked to donate serum for a complete hepatitis profile (hepatitis A IgM, IgG; hepatitis B surface antigen/antibody, core antibody/antigen, ‘E’ antigen; hepatitis C antibody). Specimens which were positive for the hepatitis C ELISA antibody test were validated with a supplemental HCV neutralization assay (Abbott Diagnostics). Hepatitis C-specific demographic and other factors were then determined. Those USAF members who were identified as having viral hepatitis from the record review, but who were no longer in the military, were studied further by examining their cause for separation. Of specific interest was the

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proportion of individuals who were separated for medical complications related to hepatitis (chronic hepatitis, hepatocellular carcinoma, non-alcoholic cirrhosis etc.).

This presentation will summarize some of the preliminary analyses of the study, which is still in progress.

RESULTS AND DISCUSSION

For the 10-yr period, 1911 records with viral hepatitis codes were analysed. Incidence rates of viral hepatitis per 100 000 active-duty person-years were calculated and revealed that sex-specific incidence rates were approximately equal for men and women for hepatitis A and non-A, non-B hepatitis. Hepatitis B, however, was nearly twice as common among men as women (14.8 versus 8.0 per 100 000 personnel, respectively). Blacks were at higher risk of hepatitis B acquisition (27.4) than whites (11.2) or members of other racial groups (13.0). Whites were slightly more likely to have non-A, non-B hepatitis than other racial groups.

Age-specific incidence rates, analysis of overseas assignment history and presence/absence of flying status, data will be thoroughly examined, with regard to possible implications for USAF viral hepatitis prevention.

REFERENCE