ABSTRACT

The objectives of this study were to assess the prevalence of hepatitis B surface antigen (HBsAg) carrier status in the community in a district in Sri Lanka and the prevalence and some risk factors of hepatitis B infection among nursing personnel in the same district.

The study consisted of four components, analysis of trends in viral hepatitis in Sri Lanka from the available records, a community based prevalence study, a cross sectional survey of nursing officers and an observational study on risk behaviours related to hepatitis B infection among the nursing officers.

The study subjects in the community survey were 1913 people in all age groups in both sexes, who were randomly selected. Three hundred nursing officers (of whom 98% were females) working in the Government hospitals in the area, who were selected randomly constituted the sample of the cross sectional survey of nursing officers. Behavioural observations were made on 42 nursing officers. This included personnel from all government health care institutions in the district, on a basis of random selection.

Study of records showed that Sri Lanka has an endemic

pattern of viral hepatitis with a slight downward trend in the mortality during the past 13 years. The viral hepatitis pattern in the study area was found to be similar to the pattern seen in the whole country.

Hepatitis B surface antigen carrier rate in the community was 2.5%. The carrier rate was highest (8.3%) among children in the age group below five years. The male to female ratio of prevalence of HBsAg was 4.7 : 1. The HBsAg carrier status was significantly associated with past illness with jaundice, contact history of jaundice and socio-economic status of the individual. The horizontal child to child transmission of infection appeared more common than vertical and other parenteral modes of transmission.

The HBsAg carrier rate among the nursing officers was 2% and this was 2.5 times higher than the carrier rate among the females in the community. The prevalence rate of hepatitis B infection among nursing officers was 11.6%. Age, duration of employment, history of a needle prick injury and past illness with jaundice in the nursing officer, and / or in the spouse and in a family member were found to be risk factor for hepatitis B infection.

Different occupational settings, either in different

health institutions or wards, were not associated with increased risk of hepatitis B infection. Non occupational parenteral mode of transmission was not common.

Knowledge on hepatitis B infection was inadequate in 69.3% of nursing officers. A significant proportion of nurses observed were not adhering to universal precautions when performing simple surgical invasive procedures on patients. The hand washing practices observed were poorer than reported by them.

The findings justify an immunization programme against hepatitis B to be launched in the area for children and the nursing officers. This study also highlights the importance of an interventional programme to improve the nursing officers knowledge and practices with regard to hepatitis B infections.