



ORAL PRESENTATION

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Morbidity associated with hepatitis E virus infection in endemic setting

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Background

To determine the groups most affected by hepatitis E virus (HEV) during documented acute viral hepatitis (AVH) epidemics, trends in AVH-associated mortality rate (MR) per 100,000 over a 35-year period were examined.

Methods

Reported AVH incidence data from 1971 to 2005 and AVH-associated mortality data from 1981 to 1995 were examined. Serologic markers for infection with hepatitis viruses A, B, D, and E were determined from a sample of hospitalized patients with AVH from an epidemic period (1987) and from a sample of pregnant women with AVH from a non-epidemic period (1992).

Results

Two multi-year AVH outbreaks were identified: one during 1975-1976, and one during 1985-1987. During 1985-1987, AVH-associated MRs were 12.3-17.8 for the general population. Highest AVH-associated MRs occurred among children in the first 3 years of life (40-190 per 100,000) and among women aged 20-29 (15-21 per 100,000). During 1988-1995 when reported AVH morbidity was much lower in the general population, AVH-associated MRs were markedly lower among these same age groups. In 1988, AVH-associated MRs were higher in rural (21 per 100,000) than in urban (8 per 100,000) populations (RR 2.6; 95% CI 1.16-5.93; $p < 0.05$). Serologic evidence of acute HEV infection was found in 280 of 396 (71%) patients with AVH in 1987 and 12 of 99 (12%) pregnant patients with AVH in 1992.

Discussion

In the absence of the availability of confirmatory testing, inferences regarding probable hepatitis epidemic

etiologies can sometimes be made using surveillance data, comparing AVH incidence with AVH-associated mortality with an eye to population-based viral hepatitis control measures. Data presented here implicate HEV as the probable etiology of high mortality observed in pregnant women and in children <3 years. High mortality among pregnant women but not among children <3 years has been observed in previous descriptions of epidemic hepatitis E. The high mortality among younger children observed in an outbreak of acute viral hepatitis associated with hepatitis E merits corroboration in future outbreaks.

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