

Seroprevalence of Hepatitis E Virus Infection in Hong Kong

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Background/Objective

Hepatitis E virus (HEV) is the major cause of enterically transmitted acute viral hepatitis worldwide. In Hong Kong, an increase in HEV infection has been recorded and predictors associated with HEV infection remains undefined. As HEV is usually asymptomatic and self-limiting, seroepidemiological data provide an important measure of exposure to HEV infection. A serosurvey was conducted to evaluate the prevalence and predictors associated with HEV seropositivity in Hong Kong.

Method

Blood samples were collected from 1,124 individuals between 2012 and 2014, including healthy individuals, food handlers and butchers. Anti-HEV antibodies were investigated using ELISA, and a structured questionnaire survey was conducted to obtain information on age, gender, food handling practices, work experience with direct pig contact, and knowledge of HEV infection. Association between potential risk factors and HEV seropositivity were assessed by logistic regression.

Result

Overall, HEV seropositivity was 33.0% (371/1124, 95% CI: 30.3-35.8%). The anti-HEV prevalence was substantially higher among butchers (49.5%, 95% CI: 40.0-59.1%) and healthy individuals aged >55 years (44.0%, 95% CI: 37.1-50.9%). Ten cases of recent HEV infection were detected: 7 cases in food handlers, 2 in healthy population, and 1 in butcher. In multivariate analysis, age (adjusted odds ratio [AOR] 3.4, $P < 0.001$ for age >35 years), gender (AOR 1.7, $P = 0.003$ for male gender) and education levels (AOR 1.8, $P = 0.006$ for lower educational levels) were associated with higher odds of HEV seropositivity.

Conclusion

This study provides updated epidemiological profile of HEV infection and a better understanding of the prevalence of anti-HEV in Hong Kong. Our study indicates that the seroprevalence of HEV is high and exposure to HEV is common, particularly among butchers with occupational exposure to pig. The rising prevalence of HEV infection highlights the need for more strengthen preventive measures and education to reduce the disease burden and improve public awareness of HEV infection.