

ABSTRACT

Hepatitis A is still an important health problem worldwide. Indonesia also belongs to hepatitis A endemic area, due to the increased prevalence and distribution of hepatitis A cases since 2011. In Surabaya (capital of East Java Province), its incidence has increased since 2013 until 2015. The purpose of this research was to identify hepatitis A virus (HAV) genotype and to analyze its risk factors in two junior high schools (SMPN 29 and SMP Unesa 2) in Surabaya in the recent outbreak in 2015. The research method used a case-control design with 50 samples (33 cases and 17 controls). Blood samples were collected to identify HAV infection (IgM anti-HAV) and HAV genotype (PCR-sequencing). Some host and environment factors were examined by interview and observation. Host risk factors were identified by using multivariate analysis. Of 50 samples, 33 had positive IgM anti-HAV and 5 had positive PCR product. All HAV isolates (5) belonged to subgenotype IA. The significant host risk factors included poor hand washing ($p=0.0006$, $OR=8.704$) and eating habit of unhygienic food ($p=0.023$, $OR=12.083$). The students' knowledge about hepatitis A did not correlate with its incidence ($p=0.531$). Poor sanitation of clean water supplies and lavatory, and also poor hygienic canteens were observed in the two schools. It can be concluded that HAV-IA was predominant; some host factors and poor sanitation contributed this outbreak.

Keywords: hepatitis A, genotype, risk factors