

## ABSTRACT

### **Identification of Hepatitis A Virus Infection Molecularly and Serologically and The Relationship between Knowledge Level and Hepatitis A Outbreak In Lamongan And Bangkalan In 2018**

Dewi Setyowati

**Background:** Hepatitis A virus (HAV) is an important causative agent of acute hepatitis in humans worldwide. Its transmission occurs fecal orally from person-to-person contact and from the consumption of contaminated water and food. The incidence of hepatitis A varies greatly from country to country and is associated with socioeconomic factors that impact the quality of sanitation. Many factors caused infection of hepatitis A, such as knowledge.

**Aims:** The aim of this study was to describe an outbreak of acute hepatitis in Lamongan and Bangkalan, East java in 2018 and to correlate knowledge with infection of Hepatitis A on this outbreak.

**Material and methods:** In this study, 88 HAV suspected cases were analysed by Rapid Test Diagnostic for the presence of antibodies to HAV. All of serum was extracted. Samples found positive by RT-PCR and nested RT-PCR using primers targeting the VP1-P2A junction and VP1-VP3 capsid region of HAV, were subjected to sequencing and phylogenetic analyses. To assess the knowledge by questionnaire.

**Results:** IgM type antibodies to HAV were detected in 51 (58%) person. Phylogenetic analysis showed that the majority of HAV strains detected in this study belong to the "HAV 1A" cluster. Analysis of the relationship of knowledge level on hepatitis A prevention with the incidence of hepatitis A infection among subjects in this study showed no relationship ( $p > 0,05$ ) in Bangkalan, but the result showed relationship in Lamongan and combine of both region ( $p < 0,05$ ).

**Conclusions:** Sub-genotype IA is the most prevalent genotype in Indonesia. Analysis of the relationship of knowledge level on hepatitis A prevention with the incidence of hepatitis A infection among subjects in this study showed no relationship ( $p > 0,05$ ) in Bangkalan, but the result showed a relationship in Lamongan and combination of both region ( $p < 0,05$ ).

**Keywords :** *Hepatitis A; Knowledge; outbreak; Lamongan; Bangkalan*