DETECTION OF AVIAN INFLUENZA VIRUS SUBTYPE H5 IN BATS FROM KEDIRI AND BLORA

Marsha Ramadhania

ABSTRACT

Since 2003, Avian Influenza subtype H5 viruses have spread to domestic poultry, birds and pigs in Indonesia and producing the highest number of human death worldwide. However, Influenza viruses, H17 and H18 subtypes have been identified from bats. The aim of this study was to detect the presence of H5 subtype in bats from Kediri and Blora. The study was conducted from February to April 2015 in the BSL-2 Laboratory AIRC-Universitas Airlangga. Thirty eight bats were collected from Kediri and eighteen from Blora Districts. The materials for this study was respiratory and gastrointestinal organs of the bats. After trituring using tissue raptor, the supernatant inoculated into embryonated chicken eggs (9-11 days old) then were incubated at 37°C. At fourth day, the allantois fluid was analysed Hemagglutinin activity using Hemagglutination (HA) test and was continued for H5 antisera identify using Hemagglutination Inhibition (HI) test. The antisera from infected H5 virus ferret sera. The result of this research showed that four positive samples from Kediri and one sample from Blora, indicated the H5 subtype Avian Influenza viruses presented potentially in Bats. We recommend to analyze using by the confirmation method, such PCR and isolation the virus from Bat and continued surveillance the viruses in Bats. This work was supported by a JSPS-DGHE Joint Research Project for 2013-2016.

Key words: Avian Influenza, H5, Bat, HA test, HI test