ANTIGENIC DETECTION OF AVIAN INFLUENZA SUBTYPE H5 IN BATS COLLECTED FROM WEST KALIMANTAN

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ABSTRACT

The Aim of this study was to find the evidence of Avian Influenza Virus subtype H5 presence in Bats collected from West Kalimantan. Samples were collected in December 2012. Moreover research were conducted from February to April 2015 in Biosafety Level 2 – Laboratory, Avian Influenza Research Center (AIRC), Universitas Airlangga. Fifty five bats were bought from bats butcher and pooled based on the organ system. The respiratory and gastrointestinal organs were tritured using tissue ruptor and the supernatant inoculated into 9-11 days old embryonated chicken eggs. The allantoic fluid was tested for Hemagglutinin protein activity using microtechnique Hemagglutinin Assay. Samples that showed titre at least 2^3 HAU/50 µL were continued to HAI Assay using standardized antisera from infected ferret by Indonesia isolated H5N1 virus. The result showed from all samples tested, only resulting 2 samples positive of HA assay. Hemagglutination Inhibition Assay was performed and the antisera negatively inhibit the agglutination. The negative inhibition for agglutination of antibody toward antigen presents in the allantoic fluid indicated that the virus did not present in the Bats. This work was supported by a Japan Society for the Promotion of Science-Diectoratte General of Higher Education Ministry Culture & Education (JSPS-DGHE) Joint Research Project for 2013-2016.

Keywords : Avian Influenza (H5N1), Bats, West Kalimantan, HAI Assay