SHORT COMMUNICATION

Serological Prevalence of Leptospiral Infection in Wildlife in Sarawak, Malaysia

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ABSTRACT

Leptospirosis is a zoonotic disease caused by pathogenic leptospiral bacteria, which are transmitted directly or indirectly from animals to humans or animal to animal. The first phase of this proposed study was carried out to determine the extent of exposure to leptospirosis in wild mammals surrounded by human settlements around wildlife or tourism area (Wind Cave, Fairy Cave, Bako National Park and Matang Wildlife Center). This study reports an incident of leptospirosis among primates (three captive and two free ranging), rats, bats, squirrels and mongoose around Kuching, Sarawak area, which has been screened for Leptospirosis. Blood samples were obtained to determine the presence of antibodies through the microscopic agglutination test (MAT) using eighteen serovars of Leptospira commonly found in Malaysia as antigens. It was observed that four out of the five monkeys (80%), rats (9/4) (44%), bats (20/5) (20.8%), squirrels 4/4 (100%) and mongoose (1) (100%) reacted against one or more serovars of Leptospira. In this study antibody of five serovars of Leptospira interrogans Copenheni, Leptospira interrogans Lai, Leptospira interrogans Pomona, Leptospira interrogans Pyrogenes, Lepto 175* were detected. Serovars Copenhegeni, Lai, Pomona and Pyogenes were considered pathogenic for different mammals including human beings. No information about serovars lepto 175 and further studies going on. This is providing information on the possible zoonotic importance of mammalian species in maintaining this disease in Sarawak. The transmission of leptospires in rats reported several incidents and between primates, bats, squirrels and mongoose is not reported elsewhere but this could create new reservoir and transmission routes and may affect the tourism, conservation effort and public health.

Keywords: Leptospirosis, wildlife, mammals, Sarawak, Borneo

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