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Serological Prevalence of Leptospirosis Among Rural Communities in the Rejang Basin, Sarawak, Malaysia

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Abstract

Leptospirosis is an important zoonotic disease globally and is endemic in Malaysia. A study was conducted in the Rejang basin of Sarawak from June 2011 to May 2013 to determine the seroprevalence of leptospirosis among the communities and dominant infecting *Leptospira* serovars. A total of 508 human sera were analyzed using ELISA and the microscopic agglutination test (MAT). The seroprevalence of leptospirosis in the study area was 37.4%, with the highest prevalence in Kapit division. More women were positive for leptospirosis (59.5%), and the mean age of seropositive individuals was 42.2 (SD = 18.7) years. Antibody titers between 1:50 and 1:1600 were reported, and serovars djasiman (22.1%), shermani (13.2%), and pomona (7.9%) predominated, with varied distribution between geographical locations. This study highlighted the endemicity and diversity of existing *Leptospira* serovars within the community. This information should be communicated to local health personnel and communities at risk, and rapid diagnostic capability should be made available to local health facilities.

Keywords

leptospirosis, prevalence, humans, agglutination test, zoonoses

Introduction

Leptospirosis is a reemerging zoonotic infection with worldwide distribution and is endemic throughout Malaysia.¹ Human infection results from either direct or indirect exposure to the urine of leptospire-laden animal hosts or contaminated environment, principally via occupational and recreational exposure.^{2,3}

Malaysia, which consists of Peninsular Malaysia, Sabah, and Sarawak, has recorded a rising number of leptospirosis over recent years. A review of human leptospirosis in Malaysia from

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