Molecular Survey of *Ehrlichia canis* in Blood and Ticks Collected from Stray Dogs in Kuala Lumpur, Malaysia

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Abstract

Ehrlichia canis is the etiological agent of canine monocytic ehrlichiosis, a potentially fatal disease of dogs and is transmitted by the brown dog tick, *Rhipicephalus sanguineus*. Recent studies have detected other possible tick vectors. Thus far, only one study has been carried out to determine the prevalence of *E.canis* using molecular methods and there are as yet no study to that detects the organism in ticks in Malaysia. Polymerase chain reaction (PCR) is known to be a sensitive and specific method for the diagnosis of canine ehrlichiosis and currently is the diagnostic method of choice worldwide. Polymerase chain reaction was performed using a species-specific set of primers for the detection of *E.canis* in blood and ticks collected from 60 stray dogs from Dewan Bandaraya Kuala Lumpur. Out of a total of 122 ticks, 120 were identified as *Rhipicephalus sanguineus* and two were identified as *Haemaphysalis* sp. *E.canis* DNA could not be amplified from any of the 60 canine blood samples or the 60 tick samples.

Keywords: *Ehrlichia canis*, *Rhipicephalus sanguineus*, ticks, PCR