Letter to the Editor

NS1 antigen positivity rate in canine sera from dengue endemic area

Dear Editor,

Dengue is an important tropical infection. The *Aedes* spp is the main vector of this deadly viral disease. Each year, there are several cases of infection from the tropical countries around the world and there are many deaths due to infection\(^1\). Of interest, the mosquito vector bites not only human beings but also other animals. According to the study by Barrera *et al*\(^2\), dog is the second most common vertebrate host of this mosquito vector. There are very few previous reports on dengue infection in the dogs mentioning about the possibilities of finding dengue positivity in them\(^3-4\). The problem is important but little attention has been given to this aspect. Hence, due emphasis needs to be given towards the prevalence of canine dengue.

We discuss here an interesting finding based on a small study on NS1 antigen positivity rate in canine sera that suggests the importance of this forgotten problem. The study was aimed to investigate the epidemiological data on existence of dengue antigen in dogs in a dengue endemic area of Thailand.

In the study, 50 randomly collected canine sera from feral dogs were tested for dengue NS1 antigen. According to the test, the seropositivity rate of 4% (2/50) was observed. This observation confirmed the previous reports on possibility of canine dengue. The prevalence of 4% in 50 canine sera is epidemiologically too high. Although, canine dengue exists, it has never been considered a problem in veterinary science. Nevertheless, if dengue can exist in dogs, they can act as an important reservoir host for human which might be an important but forgotten issue in medicine, demanding broader surveillance. The study showed the presence of antibodies in canine family. Though, monkey and man dengue cycle is established in some periurban areas, the urban areas might have some other reservoir host, as in this study dogs are shown as potential host. The season other than dengue transmission season would be very important to suggest if dog can be a reservoir host\(^2-3\). Finally, it should be noted that NS1 antigen is a non-specific antigen that can be seen in any of five dengue serotypes as well as other Flavivirus; the exact virus type has to be further investigated and established.

REFERENCES


Beuy Joob* & Viroj Wiwanitkit\(^2\)

\(^1\)Sanitation I Medical Academic Center
Bangkok–10330, Thailand

\(^2\)Department of Biological Science
Joseph Ayobabalola University, Nigeria

*E-mail: beuyjoob@hotmail.com