

A Respite from Chikungunya for Now

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In the last four years, Malaysia has had three outbreaks of chikungunya virus infection. The first two occurred in Perak in 2006^{1, 2}. The third began in Johor in early 2008³. The genome of the viruses suggests that on each occasion a different virus was introduced into the population. The first outbreak in Bagan Panchor was due to an Asian genotype virus¹. The second in the Kinta district of Perak in late 2006 was due to a Central/East African genotype virus². Contact tracing was even able to discover the patient who was the source of the virus from the Indian subcontinent⁵. The third outbreak in Johor was also of a Central/East African strain of virus, but introduced independently⁵. The epidemiology of that outbreak is described in this issue of the MJM.⁶

What we can be thankful for is, so far it appears after each outbreak, local transmission of the disease has been curtailed and the disease has not become endemic. Unlike in Africa where the main reservoir of the virus are a number of primate hosts, in Malaysia there are no such animal hosts. Nevertheless, we have the necessary mosquito vectors, in the form of the *Aedes aegypti* and *Aedes albopictus* mosquitos. That means if a sufficient number of human hosts continue to transmit and perpetuate the virus as is the case for the dengue viruses, chikungunya can become endemic.

The most recent chikungunya outbreak from early 2008 till the end of 2009 was of a different scale from the earlier two. It was not contained within one district and spread to involve the adjoining areas and other states. Then in 2009 it peaked in the states in the north of the peninsula before tailing off. It was even carried over to Sarawak.

The outbreak poses several questions. Is the public, and are our health authorities aware enough, such that in the future an outbreak can be controlled quickly? Could the fact that such a large outbreak be eventually extinguished mean that we do

not have the conditions for the disease to become endemic? Has local transmission of the disease actually ceased in 2010? Is the virus from the 2008 outbreak lying low just to re-emerge once again?

What interaction has the virus with dengue? Was it a lull in dengue that allowed the chikungunya virus epidemic to occur? Or was it the case that chikungunya caused a lull in dengue infection?

To the best of our knowledge there was only one death in the latest large outbreak of chikungunya.⁷ The MJM has chronicled the three outbreaks through 8 articles now, including a continuing medical education article after the a report of the first outbreak.⁸ For almost one year we have been able to put chikungunya somewhere at the back of our mind. However, over the place labelled chikungunya, we must hang out a sign that says 'Watch This Space'.

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