FIVE THINGS TO KNOW ABOUT ...

Chikungunya

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See also practice article on page 772 and at www.cmaj.ca/lookup/doi/10.1503/cmaj.130680

1

Chikungunya virus is an alphavirus spread by the day-biting mosquitoes of the genus *Aedes*

Chikungunya virus is transmitted by *Aedes* species of mosquitoes, which exist globally in tropical and temperate regions. *Aedes* species preferentially bite during daylight and early evening hours in urban and semiurban settings.[1]

2

Local spread of chikungunya in the Americas has recently been identified

In December 2013, local spread of chikungunya in the Americas was identified for the first time, on the island of St. Martin. *Aedes* mosquitoes inhabit much of the Americas, and sustained spread of chikungunya in the Caribbean could lead to rapid dissemination to both the northern and southern hemispheres.[1,2] Physicians should be aware that travellers visiting the Caribbean are at risk for this infection. A map of the geographic distribution of chikungunya can be found at www.cdc.gov/chikungunya/geo/index.html.

3

The clinical picture of chikungunya is very similar to dengue but with the notable presence of arthritis

Like infection with dengue virus, infection with chikungunya virus has a short incubation period (roughly four days) and may be associated with fever, myalgia, headache, a maculopapular rash, thrombocytopenia and leukopenia. However, it also has a prominent component of polyarthralgia and polyarthritis. The joint involvement is typically symmetric and preferentially affects smaller peripheral joints. Joint symptoms may persist for months or even years. More serious manifestations such as hepatitis, myocarditis or Guillain–Barré syndrome can occur; however, death is rare.[1–3]

4

Diagnosis is largely clinical and can be confirmed with serologic methods

Diagnosis is based on the common clinical features in the context of an appropriate travel and exposure history. Immunoglobulin M antibodies for chikungunya will typically be elevated five days after symptom onset and can be used for confirmation of diagnosis; however, acute and convalescent immunoglobulin G levels can also be useful if serology is performed early after presentation. Treatment is supportive because there are no known effective therapies. Nonsteroidal anti-inflammatory drugs are often useful for arthralgia and arthritis. In select cases of chronic arthritis, immunomodulators may be of benefit.[1,3,4]

5

Prevention of mosquito bites will reduce the likelihood of acquiring chikungunya

Travellers should use mosquito repellents such as diethyltoluamide of at least 30% concentration (with lower concentrations in children) or picaridin in all settings, including urban environments, along with long sleeves and pants where possible. There are currently no vaccines available for chikungunya virus, although some are in development.[1,2,5]

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Competing interests: None declared.

This article has been peer reviewed.

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***CMAJ* 2014. DOI:10.1503/cmaj.140031**