History, Epidemiology, and Clinical Manifestations of Zika: A Systematic Review

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Introduction: Zika has been one of the viruses of major concern for public health globally. Recently, it has been the cause of an epidemic in the Americas, especially in Brazil, where is suspected that this disease is causing severe neurological disorders and an unusual microcephaly epidemic.

Objectives: To describe salient epidemiological characteristics of Zika virus outbreaks across the world and to examine the clinical presentations, complications, and atypical manifestations related to their occurrence in recent history.

Method: We conducted a systematic review of the literature over the period 1954 to 2016. We systematically reviewed 52 articles, revealing some epidemiological features and patterns of spread of the Zika virus worldwide, as well as pathological outcomes suspected to be linked to Zika.

Results: Neurologic disorders among zika patients were similar in Brazil and French Polynesia but a causal link is not established. Incidence of zika infection in pregnant women is not known. In Brazil, during the zika outbreak the incidence of microcephaly increased more than 20 times. Among 35 infants with microcephaly, born from women suspected to have Zika infection during pregnancy in northeast Brazil, 74% of the mothers reported rash during the first and second trimester.

Conclusions. The current situation with regard to Zika is not encouraging, because there is no vaccine, no treatment, and no good serological test, and vector control remains a challenge.