

Zika Virus Infection

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Received 2016 February 22; Revised 2016 March 16; Accepted 2016 March 16.

Keywords: Zika Virus, Epidemiology, Prevention

Zika virus is a member of *Flaviviridae* viruses, which is transmitted by *Aedes* mosquitoes and this is the same mosquito that transmits other infections such as dengue fever and yellow fever (1, 2). Zika virus was also found in the semen of a man at least two weeks after he was infected with Zika fever (3). In year 2015, the virus was reported in South American countries (Brazil and Colombia) and Africa. In addition, more than 13 countries in the Americas have reported sporadic cases of Zika virus infection (4-6). Today, this virus is circulating in Africa, South America and Asia. The name of this virus (Zika) comes from the Zika Forest in Africa (Uganda), where the virus was first isolated in 1947. Zika fever often causes no or only mild symptoms, similar to a mild form of Crimean-Congo Hemorrhagic Fever (CCHF), dengue fever and sometimes like respiratory viruses (influenza or corona viruses) (1, 2, 6). Common symptoms of Zika virus infection are mild headaches, joint pains, fever, malaise, conjunctivitis and maculopapular rash. So far, Zika fever has been a mild disease with only one in five persons developing symptoms, with no fatalities (1, 2). However, for pregnant women, especially those that become infected in the first trimester of pregnancy, Zika virus infection can lead to microcephaly, as well as brain damage. During 2015 to 2016, there have been a few reports that show Zika virus was found in the tissue of Brazilian babies with microcephaly, who died shortly after birth, and the virus has also been detected in the tissue or amniotic fluid of these malformed fetuses. In Feb 2016, the Brazilian Health Minister confirmed the death of three patients due to Zika virus infection (4-6). The officials in Brazil reported 3500 cases of microcephaly in newborns. Until 5th of Feb 2015, Colombia recorded more than 20500 confirmed cases of Zika infection with three deaths (5, 6). The CDC advises travel restrictions for pregnant women for these regions including Brazil, Colombia, Bolivia, El Salvador, the Dominican Republic, Ecuador, Martinique, Mexico, Panama, Paraguay, French Guiana, Guade-

loupe, Guatemala, Guyana, Haiti, Honduras, Puerto Rico, Saint Martin, Suriname, and Venezuela (4-6). Infection with Zika virus can be suspected according to symptoms and recent history, including residence or travel to a region where this virus is circulating. Diagnosis of Zika virus can be confirmed by laboratory testing for the presence of virus RNA in the blood or other body fluids, such as saliva or urine. Serology tests including IgM and IgG enzyme linked immunosorbant assay (ELISA) can also confirm the acute infection. Until the present, there have been no vaccine or preventative drugs. The best way for prevention is protection against mosquito bites (1, 2, 5, 6). Travellers to endemic areas should take the basic precautions to protect themselves from mosquito bites. They should use repellents such as N, N-diethyl-3-methylbenzamide (DEET), or icaridin (1-piperidinecarboxylic acid, 2-(2-hydroxyethyl)-1-methylpropylester) (1, 5, 6). In early February 2016, an Indian company reported working on a vaccine for the prevention of Zika virus (1, 2, 6). Symptoms can be treated with rest, fluids, and acetaminophen, while aspirin and other non-steroidal anti-inflammatory drugs (NSAID) should be used, only when dengue and CCHF has been ruled out in order to reduce the risk of bleeding. There is a link between Zika fever and neurologic conditions in infected adults, including cases of the Guillain-Barré syndrome (1, 2). Finally, we should know that although Zika virus causes a mild illness, it can be dangerous for pregnant women.

Footnotes

Authors' Contribution: Batool Sharifi-Mood wrote the paper. Roshanak Sharifi and Zeinab Barati edited the English version.

Financial Disclosure: There was no financial disclosure.

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