

A Review on ZIKA Virus

Kruttidipa Jena and Sunita Mishra

Department of Zoology, School of Applied Sciences,
Centurion University of Technology and Management, Odisha

Corresponding author: sunita.mishra@cutm.ac.in

Abstract

ZIKA virus is a single stranded RNA structure and primarily spread through the bite of an infected *Aedes aegypti* or *Ae. Albopictus* mosquito. Many people infected with ZIKA virus won't have symptoms or will only mild symptoms. It is more dangerous in infants than adults. ZIKA virus may be transmitted from mother to the baby, inside the womb. It is also related to dengue, yellow fever, West Nile and Japanese encephalitis virus. The name ZIKA comes from the ZIKA forest of Uganda. This virus can also harm the fetal development and cause serious neurodevelopmental abnormalities. In 1947 it was first isolated from a nonhuman primate and then from mosquitoes in Africa in the year 1948. The antibodies of this virus have been found in several animal species like elephants, monkeys, lions, zebras. U.S territories reported that there have been no confirmed ZIKA virus disease in 2020.

Key word: ZIKA virus, RNA

Introduction

The name ZIKA comes from the ZIKA forest of Uganda in 1947, where the virus was first isolated. The structure of the virus is a single stranded RNA structure. This disease spread through the bite of an infected mosquito. It comes under the family Flaviviridae and genus Flavivirus. It is also called arthropod borne virus. ZIKA virus particles are spherical in shape and small in size. Majority of infected people may show mild symptoms, but it may cause birth defects, stillbirth and miscarriage during pregnancy. "ZIKA outbreaks occurred in Africa, Southeast Asia, and the Pacific Islands before 2015. Now outbreaks occurring in many countries and territories". The virus spread eastward, from 2007 to 2016, across the Pacific Ocean to Americans. Till now there is no specific treatment for this disease, although several vaccines are in clinical trials. The fatality rate of ZIKA virus is 8.3%. Zika virus disease with Sickle cell disorder and Guillain-Barre syndrome can cause death.

Table 1:

Areas and countries potentially at risk of Zika

<i>Africa</i>	Angola, Benin, Burkina-Faso, Burundi, Cameroon, Cape Verde (Congo-Brazzaville), Côte d'Ivoire, Democratic Republic of Congo, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Liberia, Leone, South Sudan, Sudan, Tanzania, Togo, Uganda
<i>Asia</i>	Bangladesh, Burma (Myanmar), Cambodia, India, Indonesia, Singapore, Thailand, Timor-Leste (East Timor), Vietnam

Transmission

Primarily "ZIKA virus is transmitted to people by the bite of an infected *Aedes* species mosquito". Generally, when a mosquito bites an infected person it is also infected and then