



ISSN: 2395-6429

ZIKA VIRUS- A REVIEW ARTICLE

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ARTICLE INFO

Article History:

Received 15th March, 2017
Received in revised form 13th
April, 2017
Accepted 9th May, 2017
Published online 28th June, 2017

Key words:

Zika virus, pregnancy, microcephaly,
Guillain-Barre syndrome

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ABSTRACT

Zika (Zee-ka) virus disease is a mosquito-borne viral infection that primarily occurs in tropical and subtropical areas of the world. Most people infected with Zika virus have no signs and symptoms, while others report mild fever, rash and muscle pain. Other signs and symptoms may include headache, red eyes (conjunctivitis) and a general feeling of discomfort. Zika virus infections during pregnancy have been linked to miscarriage and can cause microcephaly, a potentially fatal congenital brain condition. Zika virus also may cause other neurological disorders such as Guillain-Barre syndrome diagnosis of Zika virus infection can only be confirmed through laboratory tests on blood or other body fluids, such as urine, saliva or semen. No specific antiviral treatment for Zika virus disease exists. Treatment is aimed at relieving symptoms with rest, fluids and medications.

INTRODUCTION

Zika virus is a mosquito-borne flavivirus that was first identified in Uganda in 1947 in monkeys through a network that monitored yellow fever. It was later identified in humans in 1952 in Uganda and the United Republic of Tanzania. Outbreaks of Zika virus disease have been recorded in Africa, the Americas, Asia and the Pacific. From the 1960s to 1980s, human infections were found across Africa and Asia, typically accompanied by mild illness.

Incidence: [2, 6]

The Zika virus disease outbreak in the World Health Organization's Region of the Americas began in Brazil, which first reported a laboratory-confirmed Zika virus outbreak in May 2015; Colombia confirmed local transmission of Zika virus about 5 months later, in October 2015. In 2015, microcephaly prevalence in Brazil was 5.5 per 10,000 live births, representing an approximate nine fold increase over the average prevalence during the previous 14 years

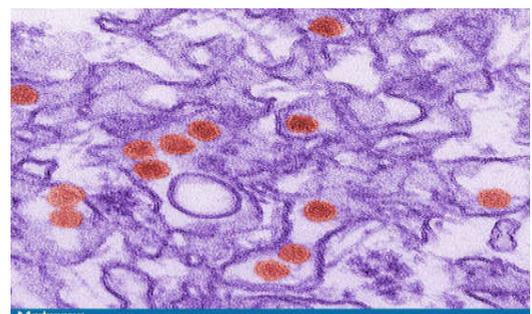
In Pregnancy: [1, 2, 4]

Zika virus infection during pregnancy is a known cause of microcephaly and serious congenital brain abnormalities and has been associated with other birth defects related to central nervous system damage. [2] Since October, Brazil has seen 508 confirmed cases of microcephaly in newborns. At least seventeen of those cases have a confirmed link to the Zika virus. There were only 146 cases in 2014. So far, 27 babies

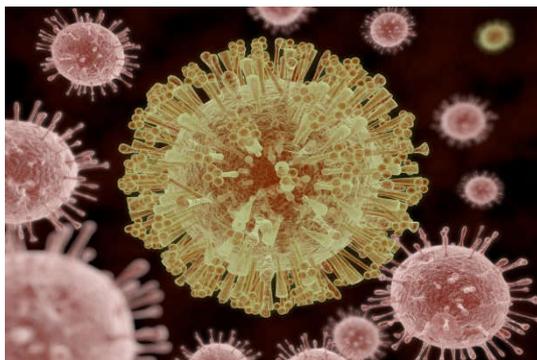
have died from the condition, with at least five linked to Zika. An additional 70 deaths are under investigation, and authorities are investigating 3,935 suspected cases. Other Latin American countries are seeing cases in newborns as well. Colombia reported more than 6,000 pregnant women have tested positive for the virus

According To Who: [5, 6]

On February 1, 2016, the World Health Organization (WHO) declared that the recent association of Zika infection with clusters of microcephaly and other neurologic disorders constituted a Public Health Emergency of International Concern. At that time, the Zika virus had emerged in 25 countries and territories in south and Central America. A lot has happened since then. The past months have shown that the current Zika virus epidemic has become a major challenge for the medical and scientific communities.



Microscope



Causes: [1, 3, 6]

The virus is most commonly transmitted when an *Aedes* mosquito bites a person with an active infection and then spreads the virus by biting others. Those people become carriers when they have symptoms. Spread of the virus through sexual contact and blood transfusion has been reported.

Risk Factors: [6]

Factors that put you at greater risk of developing Zika virus disease include:

- Living or travelling in areas where there have been outbreaks. Being in tropical and subtropical areas increases your risk of exposure to the virus that causes Zika virus disease.
- Having unprotected sex. Isolated cases of sexually transmitted Zika virus have been reported

Symptoms: [4, 3]

As many as four out of five people infected with Zika virus have no signs or symptoms. When symptoms do occur, they usually begin two to seven days after being bitten by an infected mosquito. Signs and symptoms of Zika virus disease most commonly include:

- mild fever
- rash
- joint or muscle pain
- Other signs and symptoms may include:
- headache
- red eyes (conjunctivitis)
- Most people recover fully, with symptoms resolving in about a week.

Treatment: [2, 6]

- No specific antiviral treatment for Zika virus disease exists.
- Zika virus disease is usually mild and requires no specific treatment.

- People sick with Zika virus should get plenty of rest, drink enough fluids,
- Medications-such as acetaminophen (Tylenol, others) and ibuprofen (Advil, Motrin IB, others)-to relieve joint pain and fever.
- If symptoms worsen, they should seek medical care and advice. There is currently no vaccine available.
- No vaccine exists to prevent Zika virus.

Prevention: [6]

- Cover exposed skin by wearing long-sleeved shirts and long pants.
- Use an insect repellent containing DEET that is approved by the Environmental Protection Agency, as directed.
- Use Permethrin -treated clothing and outdoor gear, such as boots, pants, socks, and tents. You can buy pre-treated clothing and gear or treat them yourself.
- Stay and sleep in screened-in or air-conditioned rooms.
- Use a bed net if the area where you are sleeping is exposed to the outdoors.

Complications: [1, 3]

Zika virus infections during pregnancy have been linked to miscarriage and microcephaly, a potentially fatal congenital brain condition. Zika virus also may cause other neurological disorders such as Guillain-Barre syndrome.

Conclusion: [4, 2]

See your doctor if you think you or a family member may have Zika virus, especially if you have recently travelled to an area where there's an ongoing outbreak. The Centres for Disease Control and Prevention (CDC) has blood tests to look for Zika virus or similar diseases such as dengue or chikungunya viruses, which are spread by the same type of mosquitoes.

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