Editorial

Zika Virus: A new threat right now

The Zika virus is probably a top-of-mind concern right now, and with good reason: This mosquito-borne virus is dominating headlines with its scary advance into the United States and potentially devastating consequences for pregnant women and their babies.

What is Zika virus?

The Zika virus is an insect-borne illness that can be primarily transmitted by infected Aedes mosquitoes. The name comes from the Zika Forest in Uganda where monkeys with the virus were first found in 1947.

Zika surfaced just over a year ago in South America and Brazil that has been disproportionately affected with thousands of babies suffering severe birth defects including brain damage in utero when their mothers contracted the virus. But it has now spread to more than three dozen countries and territories in America with local transmission taking place in two continents including USA according to the Centers for Disease Control and Prevention (CDC).

Why is it dangerous?

For the relatively few people who show signs of a Zika infection, the illness is often very mild but in pregnant woman, the effects can be devastating and can include pregnancy loss or a baby born with microcephaly may be associated with developmental delays, mental retardation seizures and in some cases can be fatal.

How is Zika transmitted?

Primarily through the bite of an infected Aedes species mosquito : (Ae.Aegypti and Ae.albopictus) Zika virus is transmitted to people. These are the same mosquitoes that spread dengue, yellow fever and chikungunya virus.

- These mosquitoes typically lay eggs in and near standing water in things like buckets, bowls, animal dishes, flower pots and vases.
- These mosquitoes are aggressive daytime biters but they can also bite at night.

From mother to child

- A pregnant woman can pass Zika virus to her fetus during pregnancy. A pregnant woman already infected with Zika virus can pass the virus to her fetus during the pregnancy or around the time of birth. To date, there are no reports of infants getting Zika virus through breastfeeding. Mothers are encouraged to breastfeed even in areas where Zika virus is found.
- Difference between congenital and perinatal transmission of Zika virus. Congenital or intrauterine transmission of Zika virus occurs when a woman is infected with Zika virus during her pregnancy but before delivery and the virus passes to the fetus.

  Perinatal transmission occurs when a woman is infected with the Zika virus within approximately 2 weeks of delivery, and the virus passes to the infant at or around the time of delivery. When an infant acquires Zika virus infection prenatally, the infant may develop symptoms such as maculopapular rash, conjunctivitis, arthralgia and fever.
- Postnatal Zika Virus Infection Infants and children can acquire Zika virus postnatally through mosquito bites.

Through sex

- Zika can also be passed through sexual transmission.

Through blood transfusion

- There have been multiple reports of blood transfusion transmission cases in Brazil. These reports are currently being investigated.

Through laboratory and healthcare setting exposure

- Prior to the current outbreak, there were four reports of laboratory acquired Zika virus infections, although the route of transmission was not clearly established in all cases.

What are the symptoms of Zika?

A Zika infection is similar to a mild case of the flu and may include such symptoms as a low-grade fever, headache, rash, muscle and joint pain and conjunctivitis (pink eye). Symptoms may last several days to a week.

Testing for Zika virus

All pregnant women should be assessed for Zika at prenatal visits in area. If one may have been exposed

either during travel to an active Zika infection area, live in an active area, or if could have been exposed through sexual contact, blood or urine tests to be done to see positive/negative for the virus, even if not showing symptoms.

Risks

Anyone who lives in or travels to an area where Zika virus is found and has not already been infected with Zika virus can get it from mosquito bites. Once a person has been infected, he or she is likely to be protected from future infections.

Prevention

No vaccine exists to prevent Zika but researchers from Florida State University, Johns Hopkins University and the National Institutes of Health have identified certain existing drugs that may be able to prevent the virus from replicating in the body and even protect fetal cells from being damaged. Most recently, it has been reported that scientists may have discovered an antibody that can help fight the virus.

What do to protect self and others

The best way to prevent Zika is to protect self from mosquito bites. If travel cannot be avoided, one should take every precaution to avoid mosquito bites, using mosquito nets including:

- Wearing shirts with long sleeves and pants, rather than shorts
- Using bug spray, which is safe for pregnant and nursing women.
- Treating clothes with insecticides eg. permethrin.
- Ridding home of any free-standing water.
- Pregnant women in any trimester should talk to the doctor or other healthcare provider before traveling to these areas and strictly follow steps to avoid mosquito bites during the trip.

While the Zika virus remains in the blood of an infected person for a few days to a week, according to the CDC, there is no current evidence to suggest that it poses a risk of birth defects in future pregnancies.

In conclusion a multidisciplinary approach is required to fight this threat against future generation.

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