EDITORIAL

Global Threat – Zika Virus

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Zika virus is an emerging mosquito-borne virus that was first identified in Zika forest of Uganda in 1947[1] in rhesus monkeys through a monitoring network of sylvatic yellow fever. It was subsequently identified in humans in 1952 in Uganda and the United Republic of Tanzania[2]. Outbreaks of Zika virus (Figure 1a) disease have been recorded in Africa, America, Asia and Pacific.It belongs to the family of Flavi virus[3]and its vector is Aedes mosquitoes[4] (which usually bite during the morning and late afternoon/evening hours) (Figure 1b). The reservoir is yet unknown.

Figure: 1a[4]

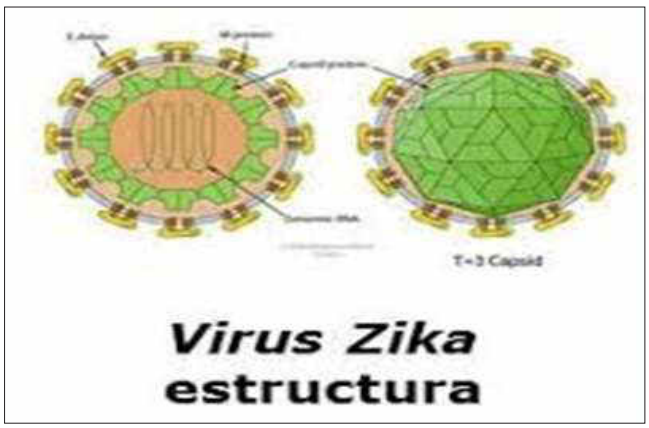

Figure: 1b[4]

The incubation period (the time from exposure to symptoms)is not clear, but is likely to be few days. The symptoms are similar to other arbovirus infections such as dengue[5], which include fever, skin rashes, conjunctivitis, muscle and joint pain, malaise, and headache. These symptoms are usually mild and last for 2-7 days. The virus is transmitted to people through the bite of an infected mosquito from theAedes genus, mainly Aedesaegypti in tropical regions. This is the same mosquito that transmits dengue, chikungunya[6] and yellow fever. Zika virus disease outbreaks were reported for the first time from the Pacific in 2009 and 2013[7] (Yap and French Polynesia, respectively), and in 2015 from America (Brazil and Colombia) and Africa (Cape Verde). In the month of January and February 2016, more than 13 countries including America, Brazil and France reported sporadic spread indicating rapid geographic expansion of this virus. In Colombia it has been reported that 2000 pregnant women are also suffering from this viral disease. The diagnosis is mainly done on the basis of clinical assessment and recent history (e.g. residence or travel to an area where Zika virus is known to be present).Isolation of virus on PCR[8] and other body fluids such as urine and saliva.[9] There is no definite treatment of people suffering from this viral disease and no vaccination is available till to date.The only management is that the patient should be encouraged to take rest, drink plenty of water and to relieve pain and fever by taking analgesic and antipyretic drugs accordingly. During large outbreaks in French Polynesia and Brazil in 2013 and 2014[10]respectively, national health authorities reported potential neurological and auto-immune complications of this virus disease. Recently in Brazil, local health authorities have observed an increase in Guillain-Barré syndrome which coincided with this virus infection in the general public, as well as an increase in babies born with microcephaly in northeast Brazil. Agencies investigating the Zika outbreaks are finding an increasing body of evidence about the link between Zika virus and microcephaly (Figure 2a, 2b). However, more investigation is needed to better understand the relationship between microcephaly in babies and to this virus. Other potential causes are also being investigated.

Figure: 2a[4]

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Figure: 2b[4]

People should be instructed to adhere to the following preventive measures;

1. Rely on reducing mosquitoes through source reduction (removal and modification of breeding sites) and contact between mosquitoes and people.
2. Use insect repellent, wearing clothes (preferably light-coloured) that cover as much of the body as possible; using physical barriers such as screens, closed doors and windows; and sleeping under mosquito nets.
3. Empty, clean or cover containers that can hold water such as buckets, flower pots, so that places where mosquitoes can breed are removed.
4. Give special attention and help to those who may not be able to protect themselves adequately, such as young children, the sick or elderly.
5. During outbreaks, health authorities advise spraying of insecticides to be carried out. Insecticides recommended by the WHO Pesticide Evaluation Scheme may also be used as larvicides to treat relatively large water containers.
6. Travellers should take the basic precautions described above to protect themselves from mosquito bites.

   WHO is supporting countries to control this viral disease by:

   Defining and prioritizing research regarding this disease by convening experts and partners.

   Enhancing surveillance of this virus and potential complications.

   Strengthening capacity in risk communication to help countries meet their commitments under the International Health Regulations.

   Providing training on clinical management, diagnosis and vector control through a number of WHO Collaborating Centres.

   Strengthening the capacity of laboratories to detect the virus.

   Supporting health authorities to implement vector control strategies aimed at reducing Aedes mosquito populations such as providing larvicide to treat standing water sites that cannot be treated in other ways, such as cleaning, emptying, and covering them.

   Preparing recommendations for clinical care and follow-up of people contracted with this virus, in collaboration with experts and other health agencies.[10]

   Measure should be taken through electronic and print media to disseminate information and provide awareness regarding this deleterious virus as prevention is the only armour which we can employ at present to fight against the attack of this virus.

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