

Background

Human illness caused by Zika virus was first recognized in Nigeria in 1953 when Zika infection was confirmed in three ill persons¹. In 2007 an outbreak of Zika occurred on the Yaps Islands, Micronesia. Zika virus was first identified in the Americas in March 2015 when an outbreak of a febrile illness with rash occurred in Bahia, Brazil (figure-1)¹. By March 2016 the virus had spread to at least 33 countries and territories in the Americas.

Zika remains pandemic in regions where its vector, the Aedes mosquito is found. Although usually self limited, Zika virus infection has been associated with congenital microcephaly, fetal loss and Guillain-Barré syndrome. Early recognition of travel to Zika endemic regions by pregnant women or their sexual partners is important to prevent complications.

We present two cases of confirmed Zika infection presenting with a **pruritic** rash.

Case Reports

Case I:

A 61 y/o female with a past medical history of dyslipidemia returned to the U.S. after a one week vacation to the Dominican Republic. Two days after returning she experienced diffuse muscle aches and joint pains specifically involving her hands, knees and ankles. One week after returning she presented to SBH ED with complaints of red eyes, a pruritic rash on her abdomen, intermittent fevers, chills, nausea and tingling of fingers and legs.

On examination, the patient was afebrile, non toxic, with mild conjunctival injection and a fading papular rash on her trunk. Routine laboratory was normal. Testing for Zika and Dengue were obtained.

Urine Zika PCR positive, Blood Zika PCR negative, Serum Zika IGM positive, Dengue IGM negative.

Case II:

A 39 y/o female with a past medical history of renal stones returned to the US after a 2 week trip to the Dominican Republic. Two days after returning she experienced diffuse joint pains, neck pain, fever, chills, headache, sore throat, nausea, fatigue, anorexia, and dizziness associated with itchy burning eyes. Two days later she developed a diffuse pruritic rash. She does recall insect bites on her legs during her stay. No family members on the island reported a similar illness.

On examination, she was afebrile, non toxic, with mild conjunctival injection, erythema of the posterior pharynx, a small right axillary lymph node and a very fine morbilliform rash on her arms, legs and trunk.

Laboratory findings were only significant for a mild leukopenia with a white cell count of 3.4k /ul with normal diff. Appropriate work up for Zika virus, Dengue and Chikungunya were obtained.

Blood Zika PCR positive, Dengue IGM and Chikungunya IGM negative.

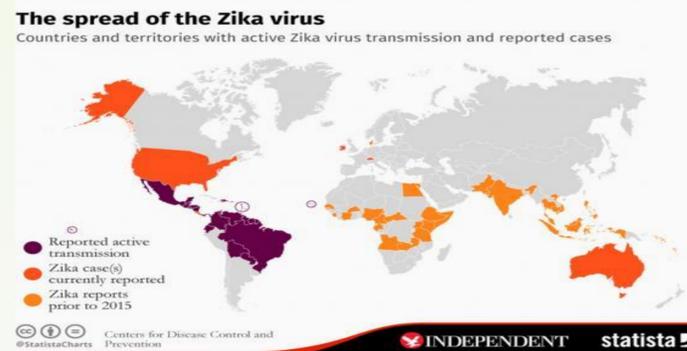


Figure - 1

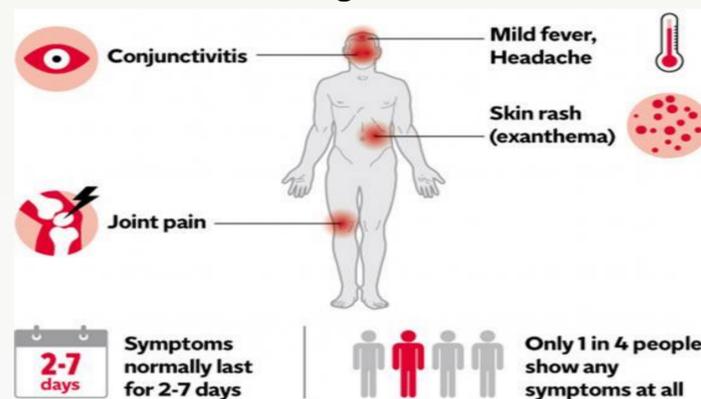


Figure - 2



Figure - 3

Discussion

Since 2007 Zika virus has been considered a public health concern². After its emerging outbreaks in the Americas, this virus, transmitted by both A.aegypti and A.albopictus has become a “global player”³.

Since the mosquito vector is present in the U.S., there is concern that Zika will spread and be locally transmitted, however, travel to endemic countries is presently the primary risk factor.

Due to co-circulation and similar clinical presentations, Dengue and Chikungunya are in the differential diagnosis.

The Pan American Health Organization (PAHO) advises providers to suspect Zika virus infection in patients at risk who present with rash or fever plus one or more of the following: myalgia, arthralgia, non-purulent conjunctivitis, headache or malaise if other diseases are ruled out (figure-2)⁵.

Detection of the viral nucleic acid by RT-PCR in serum within the first week of symptoms or Zika IGM antibodies after the first week of illness reflects recent infection. Zika virus RNA can be detected in urine for longer periods of time¹.

Conclusion

- Our two cases emphasize that a pruritic rash may be a differentiating symptom for Zika compared with the rash associated with Dengue and Chikungunya.
- Treatment for uncomplicated Zika virus infection is only supportive. Avoidance of aspirin and NSAIDs is recommended in cases of possible Dengue.
- Avoid unnecessary travel to endemic areas, if traveling, preventive measures include: controlling the mosquito vector, avoiding mosquito bites using mosquito repellent, permethrin treatment for clothing, bed nets, window screens, and use of air conditioning (figure-3).
- To avoid the catastrophic effects on the fetus, pregnant women and women of childbearing age should avoid unprotected sexual contact with male partners returning from a Zika endemic area for 6 months and should avoid pregnancy for 8 weeks after travel to a Zika endemic areas.
- Future efforts to control the Zika virus depends on developing herd immunity and vaccines to protect humans against the disease.

References

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