Quality in Primary Care (2021) 29 (11): 140-141.

Perspective

The Public Health Perspective and Preparedness of Health-Care System for Zika Virus and Epidemiological Study

Marisa Andreola

Division of Reproductive Health, Centers for Disease Control and Prevention, Atlanta, GA, USA

Introduction

Zika infection was first separated in 1947 from a rhesus monkey in Uganda, from that point forward various irregular flare-ups of the diseases have been accounted for. Recognizing the relationship between the Zika infection contaminations and a synchronous ascent in the rate of Microcephaly, the sickness has been viewed as a general wellbeing concern. Further, attributable to the broad greatness and the penchant of the contamination to spread universally, the sickness requires coordinated effort from every one of the concerned areas. In any case, taking into account that there are no remedial device or immunization accessible for the regulation of the contamination, there is a critical need to put resources into the examination exercises. Taking everything into account, Zika infection disease is a worldwide general wellbeing concern and it requires broad exertion from every one of the concerned areas for the counteraction and control of the contamination. The need of great importance is to fortify the medical care conveyance framework and backing something similar with the standard disease control and better execution of International Health Regulations.

Zika infection (ZIKV) has a place with the class Flavivirus inside the family Flaviviridae, which incorporates other human pathogenic infections, for example, Yellow Fever infection, Dengue infection, Japanese Encephalitis infection, West Nile infection, and tick-borne encephalitis infection. The infection is communicated by the chomp of mosquito species, fundamentally Aedes aegypti and Aedes albopictus. It was first disconnected from the Zika timberland in Uganda in 1947 from sentinel rhesus monkey during observation for Yellow Fever infection [1]. The principal human instance of ZIKV contamination was affirmed in 1952 from a patient in Eastern Nigeria [2]. From that point, inconsistent cases were accounted for in Africa and Asia for around 50 years [3]. ZIKV was considered to cause a gentle febrile infection until the primary reported flare-up happened in 2007 in Yap Island in the Federated States of Micronesia. The episode was described by rash, conjunctivitis, and arthralgia and was clinically unmistakable from recently recognized dengue sickness. Almost 80% of ZIKV contaminations are asymptomatic, while 20% commonly present as a gentle type of dengue-like sickness with second rate fever, skin rash, muscle, and joint agony, conjunctivitis, regurgitating, cerebral pain, disquietude, surrender, and edema of the hands and feet.

The study of disease transmission

This infection was first idea to be experienced in Zika woodland in Uganda inside the mammalian host rhesus monkeys during 1947 having similar febrile side effects like dengue. In 1952, during an examination with sentinel rhesus macaque monkeys in Zika timberland, researchers found an infection and named it Zika infection after the name of the wilderness Although human might go about as an incidental host for Zika infection, in places where non-human hosts are not accessible, human host turns into the essential host [4]. Different hosts recognized for transmission incorporate water bison, elephants, goats, hippos, impala, kongoni, lions, sheep, rodents, wildebeest, and zebras.

Zika infection has spread generally among various nations of the world from its first experience in Uganda to the America's (Brazil, Colombia, Venezuela, Honduras, Panama, Haiti, Jamaica, Bolivia, Ecuador and so on nations) till January 2016. Cases were accounted for in Indonesia, India, Pakistan, Malaysia in 1970s just as in French Polynesia in the extended time of 2013. It is thought to turn into a pestilence as of late. At the point when originally presented in Uganda in the extended time of 1947, the Zika infection disease happened in Egypt, Nigeria, Tanzania from Africa and afterward Thailand, India, Indonesia, Malaysia from Asia during 1960s and 1970s. Carribean nations and regions presented to this disease incorporates Marthinique, Saint Martin, Puerto Rico, Haiti, Barbados and Guadeloupe. Cape Verde, Pacific locale, Maldives were likewise capable the impacts of the Zika infection related disease. This contamination has been accounted for to be acquainted with different nations (US, Canada, Germany, Netherlands and so forth revealed in 2016 and to Finland in 2015) by voyaging. In 2007, the contamination spread to Micronesia [5,6].

Albeit various instances of movement related ZIKV diseases have been accounted for in European voyagers, no nations in the area have announced autochthonous, mosquitoborne transmission of ZIKV. 1,52 Aedes aegypti, the essential skillful mosquito vector, has been set up in pieces of Georgia, Portugal (Região Autónoma da Madeira), the Russian Federation and Turkey. 1,53-6 In December 2017, the Institute of Tropical Diseases and Public Health of the Canary Islands in Spain identified the presence of Aedes aegypti mosquitoes inside a restricted region on Fuerteventura; proceeded with examinations are in progress to decide whether the vector is yet settled.

India initially detailed four instances of ZIKV disease in 2017; three were in Gujarat State (one which had happened in late 2016), and one in Tamil Nadu. 64 In 2018, a ZIKV episode was distinguished in Rajasthan state. 7 Active case finding and screening of pregnant ladies were started, especially in a 3 km span of the Shastri Nagar space of Jaipur. As of December 2018, the India National Center for Disease Control, Ministry of Health and Family Welfare announced 159 affirmed instances of ZIKV contamination from Rajasthan state (counting 63

pregnant ladies), 130 cases from Madhya Pradesh, and one case from Gujarat state. 65-67 An examination of viral arrangement investigation of five examples from the Jaipur flare-up recognized course of the Asia genealogy Asian strain, exhibiting the flare-up capability of the more seasoned Asian strain.

References

1. Dick GW. Zika virus. II. Pathogenicity and physical properties. Trans R Soc Trop Med Hyg 1952; 46: 521-534.
2. MacNamara FN. Zika virus: a report on three cases of human infection during an epidemic of jaundice in Nigeria. Trans R Soc Trop Med Hyg 1952; 48: 139-145.
3. Baud D, Gubler DJ, Schaub B, Lanteri MC, Musso D. An update on Zika virus infection. Lancet 2017; 319: 2099-2109.
4. Patterson J, Sammon M, Garg M. Dengue, Zika and chikungunya: emerging arboviruses in the new world. West J Emerg Med 2016; 17 : 671-679.
5. Duffy MR, Chen TH, Hancock WT. Zika virus outbreak on Yap Island, federated states of Micronesia. N Engl J Med 2009; 360:2536-2543.
6. Shuaib W, Stanazai H, Abazid AG, Mattar AA. Re-emergence of Zika virus: a review on pathogenesis, clinical manifestations, diagnosis, treatment, and prevention. Am J Med 2016; 129:7–12.

ADDRESS FOR CORRESPONDENCE:

Marisa Andreola, Division of Reproductive Health, Centers for Disease Control and Prevention, Atlanta, GA, USA; E-mail: andreola@marisa.gov

Submitted: November 05, 2021; Accepted: November 19, 2021; Published: November 26, 2021