

6th International Congress on

Bacteriology & Infectious Diseases

May 21-22, 2018 | New York, USA

Vector surveillance of Zika virus in selected high-risk areas of India

Nasreen Akhtar, B N Nagpal, Himmat Singh, Aruna Srivastava and Neena Valecha
National Institute of Malaria Research, India

Zika virus is an emerging mosquito-borne Flavivirus that was first identified in Uganda in 1947 in Rhesus 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. The first large outbreak of disease caused by Zika infection was reported from the Island of Yap (Federated States of Micronesia) in 2007. In July 2015, Brazil reported an association between Zika virus infection and Guillain-Barré syndrome. In October 2015, Brazil reported an association between Zika virus infection and microcephaly. In 2017, Angola reported two cases of Zika virus. In 2017, the MOHFW India reported three positive cases of Zika virus disease in Gujarat, State, India. India needs to be particularly proactive on Zika spread since the mosquito that carries the virus actually thrives in the country. Zika virus is primarily transmitted to people through the bite of an infected mosquito from the *Aedes* genus, mainly *Aedes aegypti* in tropical regions. They usually bite during the day, peaking during early morning and late afternoon/evening. This is the same mosquito that transmits dengue, chikungunya and yellow fever. Six zones of Delhi, India were selected for entomological surveys in transmission and non-transmission seasons (Figure 1). Study sites were selected on the basis of occurred dengue cases in Delhi and near about localities and these localities categorized into high, medium and low-income groups on the basis of socioeconomic characteristics of the resident population. A total of 139 localities of Delhi were surveyed and larvae were collected from different breeding habitats like, cemented tank, bird pots, storage tank etc. A total of 2618 mosquito in 348 pools (10 mosquitos in one pool) were processed for the isolation of RNA and screened by RT-PCR and it was found that 10 localities in Delhi were found positive for Dengue virus but all were negative for Zika virus. Presently no specimen was found positive for Zika virus in Delhi.

nasreen84akhtar@gmail.com