

JOINT EVENT

10th International Virology Summit & 4th International Conference on Influenza & Zoonotic Diseases

July 02-04, 2018 | Vienna, Austria

If they breed, we will bleed

Sarbjeeet Sharma

Shri Guru Ram Das Institute of Medical Sciences and Research, India

Dengue Fever, also known as Break-Bone Fever, is a mosquito-borne, non-lethal, febrile illness with severe arthritis & rash. The causative agent, Dengue Virus, that is endemic & often epidemic in tropics and subtropics, has 4 serotypes all of which are present in India. Infection with one serotype confers immunity to it, but not to the other serotypes. Subsequently, repeat infection with a second serotype, especially Serotype-2, by virtue of immune enhancement, predisposes to a life-threatening variant of the disease called Dengue Haemorrhagic Fever or Dengue Shock Syndrome, particularly in children. Dengue virus is the most common vector-borne disease in the world causing an estimated 100 million cases of dengue fever; 250,000 cases of dengue haemorrhagic fever and 25,000 deaths per year. Humans are the main reservoir for the dengue virus. Vector of transmission, *Aedes aegypti*, a small, black mosquito with lyre-shaped markings & banded legs, popularly known as the Tiger Mosquito, is typically a day-biter, feeding primarily on human beings in domestic & peri-domestic settings. It lays eggs preferably in areas of stagnant water, e.g. flower vases, uncovered barrels, plastic bottles & discarded tyres, soda-caps etc., the most dangerous being desert-coolers & toilet-tanks which allow indoor breeding. Laboratory diagnosis is based on demonstrating the presence of virus specific antigen/antibody or a positive RT-PCR test for dengue genomic sequences. As there is no commercially-available vaccine or specific treatment, prevention is sought by reducing the number of mosquitoes and limiting exposure to bites. The former can be achieved by eliminating habitats by environmental/chemical/biological control for larvae & residual sprays (DDT)/space sprays (pyrethrum)/genetic control for adult mosquitoes, while the latter can be achieved by wearing clothing that fully covers the skin, using mosquito-nets while resting and/or application of insect-repellents. Recent developments aimed at reducing dengue transmission is the use of insecticide treated curtains & improved larvicides that can be safely used in drinking water. Since spraying may not be effective due to resistance, the mainstay of *Aedes aegypti* control and fighting the menace of dengue fever and its deadly complications is by reducing open collections of water to prevent their breeding, because, if they breed, we will bleed.

drsonu_sharma@yahoo.co.in