



Dengue Virus Serotype 2 (DEN-2) is Common in Pakistan

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EDITORIAL

The aim of this editorial is to explore the outbreaks cause by different serotypes of dengue virus (DENV) in Pakistan in the past and also updates the epidemiology of dengue in Pakistan. In the preparation of this editorial various published literatures have been reviewed from international and national journals, local newspapers and books. Currently the Dengue is one of the most serious public health problem worldwide; especially in tropical and subtropical regions of the world [1-2]. Dengue is caused by arthropod-borne small spherical, single-stranded enveloped RNA virus known as dengue virus (DENV) belongs to family Flaviviridae and genus Flavivirus. The DENV infect mammalian and vector cells [3]. The four known serotypes of DENV cause the disease include dengue virus-1 (DEN-1), dengue virus-2 (DEN-2), dengue virus

(DEN-3) and dengue virus-4 DEN-4. All the four serotypes have been identified from different regions of the world [4-5].

According to World Health Organization (WHO), about 50-100 million cases of dengue fever and 500,000 cases of Dengue Hemorrhagic Fever (DHF) are reported annually along with 24,000 deaths [6]. The dengue is endemic more than 100 countries. The most serious affected regions are South-east Asia and the Western Pacific. The WHO, declares dengue fever and (DHF) are endemic in South Asia. In America, more than 890,000 cases of dengue of which 26 000 cases were DHF reported in 2007. More than 70% cases of dengue fever Asia and the Pacific regions of the world followed by America, Middle East and Africa [7].

The first epidemic of dengue in Pakistan was reported in 1994. In Pakistan many epidemic of dengue occurred in the last twenty years [7-14]. The major epidemic of dengue is occurred in

2011, in Lahore, Punjab province of Pakistan [15-16]. In Pakistan the serotype DEN-2 is the most common among the other serotypes. A study conducted by Muhammad et al., [17] in Pakistan reported that 96.02% cases of dengue caused by serotype DEN-2 in the 2011 epidemic in Lahore, Punjab province, Pakistan. The study conducted by Fatima et al., [1] in Pakistan reported that DEN-2 and DEN-3 serotypes are the causative agent of 2006-2009 outbreaks in Pakistan. In others studies conducted in Pakistan shows that the serotypes DEN-1, DEN-3 and DEN-4 are also found. According to Humayoun et al., [14] reported DEN4, DEN2, and DEN3 serotypes from Pakistan, the results shows that the DEN-4 is predominant serotype. Currently the dengue outbreak is occurred in district Swat, province Khyber Pakhtunkhwa, Pakistan in August, 2013, infected more than seven thousand of peoples in Swat district. The cases of dengue were also identified in the adjacent area of Swat, known district Dir (Lower) and Batkhela, Malakand Agency [18-20]. We recommended further studies in this regards in district Swat, Pakistan.

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The author declares that they have no competing interest.

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