

Serotypes identification of Dengue Viruses circulating in Mandalay 2019: A hospital-based descriptive study (Poster)

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² 5 550-bedded Mandalay Children Hospital

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Abstract :

Dengue (DEN) is one of the neglected tropical diseases and all four serotypes of dengue viruses (DENV) are circulating in Myanmar. Surveillance of DENV serotypes is important for public health professionals for early detection of outbreak. Changing the serotypes pattern of DENV is one of the risk factors for causing outbreak. A hospital-based descriptive study was conducted in 550-bedded Mandalay Children Hospital to identify the serotypes of DENV among paediatric (less than 13 years old children) patients. Serum samples were collected from 198 DEN suspected DEN patients during the peak season of DENV infection (July-August, 2019). CareUs Dengue Combo test kit (WellsBio, Seoul, Korea) was used to check the NS-1 Antigen and Anti-DENV-IgM and IgG Antibodies. One-step Reverse Transcription Polymerase Chain Reaction was conducted to identify the serotypes using DENV serotype specific primers. Among 198 suspected cases, 51 patients (25.75%) were positive on NS-1 Ag, 46 cases (23.2%) were on Anti-DENV IgM Ab and 55 cases (27.8%) were on Anti-DENV IgG Ab. By serology and molecular techniques, total 74/198 cases (37.4%, 95%CI: 30.6-44.5%) were confirmed as acute DENV infection in this study. Of 74 cases tested, 35 cases (21 DENV-1, 12 DENV-3 and 2 DENV-4) were detected by molecular method. DENV-1 was dominant for more than one decade and DENV-3 becomes a second commonest serotype followed by DENV-4 and DENV-2 was not detected in Mandalay during 2019.