

Abstract 33

Demographic, clinical and virological parameters of dengue fever and dengue haemorrhagic fever cases admitted to the Teaching Hospital, Jaffna

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Background and objective: Dengue is a major public health issue in Sri Lanka, presenting from mild febrile illness to severe haemorrhagic manifestations. Studying demographic, clinical, and virological factors are crucial for improving patient management and preventing future outbreaks. This study aimed to describe the demographic, clinical and virological parameters of dengue fever (DF) and dengue haemorrhagic fever (DHF) cases admitted to the Teaching Hospital Jaffna in 2023.

Methods: This was a retrospective study of Bed Head Tickets (BHT) of clinically suspected dengue cases admitted to the medical wards of the Teaching Hospital Jaffna in 2023. In total, 298 clinically suspected dengue cases were analysed, including BHTs of males and females above 12 years of age. Data were analysed using SPSS version 26. Associations between categorical variables were tested using the chi-square test, and a p-value <0.05 was considered statistically significant. Ethical clearance was obtained from the Ethics Review Committee, Faculty of Medicine, University of Jaffna.

Results: Among 298 clinically suspected dengue cases 185 (62.1%) were DF and 113 (37.9%) were DHF. The mean age was 34.38 years (± 15.196), and males were predominantly affected. Most DHF cases were from the Jaffna MOH, while DF cases were from Nallur MOH. Seasonal variation shows that cases peaked in December - January for DHF, and January - February for DF. A previous history of dengue infection was significantly associated with DHF ($p < 0.001$). Liver enlargement was more frequent in DHF ($p < 0.001$), while nausea/vomiting, retro-orbital pain, and arthralgia were more common in DF. Laboratory findings revealed leukopenia (21.3%), thrombocytopenia (37.6%) and elevated SGOT levels (70.6%) among DHF patients. NS₁ antigen was more frequently positive in DHF cases (5.7%) than in DF (1.3%), though many results were not available.

Conclusion: Dengue infection predominantly affected males and showed seasonal and regional clustering in 2023. DHF was linked with secondary infections and more severe clinical and laboratory abnormalities. Strengthening virological diagnostics, ensuring early detection, and implementing preventive measures in high-risk areas during peak seasons are recommended to improve dengue control and patient outcomes.

Keywords: dengue fever, dengue haemorrhagic fever, Teaching Hospital, Jaffna