



## **VIROLOGICAL AND IMMUNOLOGICAL PROFILES IN DENGUE FEVER SUSPECTED PATIENTS FROM THE NORTHERN PROVINCE OF SRI LANKA**

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**BACKGROUND:** Despite the rise in suspected DF/DHF cases in the North of Sri Lanka, laboratory confirmations of those cases are lacking.

**OBJECTIVES:** The aim of the current study was to assess the virological and immunological profiles of DF / DHF suspected cases in the North.

**METHODS:** DF/DHF suspected patients (n=300) admitted to the Teaching Hospital, Jaffna from December 2009 to January 2010 were recruited to collect the demographic data and blood samples. Sera were tested for NS1 antigen, IgM and IgG.

**RESULTS:** Of the 300, 53% were males; 61 % were adults. Mean age and fever duration were 25.27 years and 6.74 days, respectively. Over 40% (41.3%) were positive for NS1; 49.3% and 67.7% were positive for IgM and IgG, respectively. More than ½ of the NS1 positives (54.8%) had NS1 in <5 days of fever, and 37.1% and 8.1% had NS1 when the fever days were 5-7 and >7, respectively. The association between NS1 and fever <5 days was significant (p <0.05). Only 30.4% IgM positives were fever days <5, in that 23.4% had IgG; 56.8% had IgM when fever days were 5-7; 12.8% had IgM when fever days were >7. IgM and NS1 were positive in 20%; 70.6% were either had IgM or NS1. NS1, IgM and IgG were positive in 13.6%; 19% had IgG only.

**CONCLUSIONS:** In 91.9% patients NS1 antigen was detected when the fever days <7. In 87.2% patients IgM was detected when the fever days <7. Combining NS1 and IgM detection would be useful in the diagnosis of DF.

**KEYWORDS:** DF / DHF, NS1 antigen, virological and immunological diagnosis.