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CLINICAL, VIROLOGICAL AND IMMUNONOLOGICAL PROFILES OF DENGUE FEVER IN CHILDREN HOSPITALISED IN THE TEACHING HOSPITAL, JAFFNA

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INTRODUCTION

Dengue fever (DF) and dengue haemorrhagic fever (DHF) continue to be a major public health problem in Sri Lanka. However there is a scarcity of data in various aspects of DF / DHF in the Jaffna district.

OBJECTIVES

The aim of this study was to assess the clinical, virological and immunological profiles in children hospitalized with suspected DF / DHF in the Teaching Hospital, Jaffna.

DESIGN, SETTING AND METHOD

The current study was carried out in the paediatric wards of the Teaching Hospital, Jaffna from December 2009 to January 2010. A total of 52 patients admitted during the 2009/2010 DF / DHF outbreak were included. Three ml blood was obtained after getting informed written consent. All 52 samples were tested for dengue NS1 antigen, IgM and IgG using ELISA (Pan Bio Diagnostics, Australia). Clinical and demographic data were obtained from each patient using a pre-tested questionnaire and the data were analyzed using statistical software, SPSS Version 17.

RESULTS

Of the 52 patients, 30 were males and the mean age of this cohort was 5.52 years with a mean fever duration of 6.12 days. The common symptoms were fever, arthralgia, myalgia, retro-orbital pain, rash and haemorrhages. Of the 52 patients, one child died due to dengue shock syndrome. Of the 52 samples tested 26 (46.2%), 24 (46.2%) and 35 (67.3%) were positive for dengue NS1 antigen, IgM and IgG respectively. Eleven patients were positive for dengue NS1 antigen and IgM. Half of the dengue NS1 positivity and 7 IgM positivity were detected in patients with less than 5 days of fever.

CONCLUSION

Dengue NS1 antigen detection will be more useful than IgM detection in early diagnosis of DF / DHF, if performed in the early phase of the disease.