

DISCUSSION

The diagnosis of dengue and the differentiation between primary and secondary infections are important not only for monitoring the spread of the epidemic but also for identifying the risk of severe forms of the disease. The detection of immunoglobulin IgM and IgG antibodies is the main technique for the laboratory diagnosis of dengue. A few days after the onset of fever, IgM appears as the initial immune response to a primary infection. Soon after IgM detection, IgG also appears on days 5-7 of the disease, reaching the highest titres during the third week of the disease. [5]

Dengue IgM antibody is a marker of recent infection, detection of which is easy, simple and less time-consuming as compared with other serological method. Though dengue IgM detection is a commonly performed test for diagnosis of dengue, it has limitations due to cross-reactivity between other circulating flaviviruses. [6]

The dengue virus NS1 (Non-structural protein 1) is a highly conserved glycoprotein that is essential for the viability of dengue virus and is produced both in membrane-associated and secretory forms by the virus. Enzyme-linked immunosorbent assays (ELISA) directed against NS1 antigen (NS1 Ag) have demonstrated its presence at high concentrations in the sera of dengue virus infected patients during the early clinical phase of the disease. [7]

There is an alarming increase in the incidence of fever with thrombocytopenia. Infections like malaria, dengue, leptospirosis, typhoid, viral fever are some of the common causes of fever with thrombocytopenia. A well organised systematic approach that is carried out with an awareness of causes of fever with thrombocytopenia can shorten the number of investigations and bring out diagnosis. From certain studies it was found that, dengue was one of the commonest cause for the incidence of fever and thrombocytopenia to occur. [8]

Incidence of dengue has increased 30 fold with an expanded geographic distribution of both the viruses and mosquito vectors to new countries and from urban to rural settings. The new challenge is recurrence of dengue haemorrhagic fever with higher severity, even twenty years after primary infection. [9]

CONCLUSION

From the study it is concluded that there were more number of patients who were diagnosed with secondary infection of dengue with the presence of IgG antibodies in them when compared to those with primary infection of dengue. Therefore, detection of dengue specific IgM/IgG antibody is essential and has been the mainstay for the diagnosis of dengue infection.

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