Human Antibodies 19 (2010) 27
DOI 10.3233/HAB-2010-0213
IOS Press

Letter to the Editor

Seroprevalence of dengue virus antibodies in healthy Jamaicans

To the Editor,

We compliment Brown et al. [1] for their interpretation on emergence of more severe forms of dengue, dengue haemorrhagic fever (DHF) and dengue shock syndrome (DSS) in the Jamaican population in near future.

Certainly, with just one sample, utility of dengue IgG would be minimal. Only paired samples with couple of week interval could be useful. Moreover, high prevalence of dengue virus enhancing antibodies would be associated with enigmatic situation for an accurate IgM based disease diagnosis in clinicians' premises and field. Enzyme linked immunosorbent assay (ELISA) or rapid, on-site tests for IgM antibody would, as a rule than exception, are indistinct. A secondary or tertiary infection would be associated with an earlier rise in IgG antibody. During very early acute febrile phase, a viral culture or molecular tests would establish a specific disease diagnosis.

In Jamaican health care centers lacking facilities for such sophisticated tests and trained personnel, rapid on-site immunochromatographic tests for dengue virus non-structural protein, NS1, should be a practical option. The recent performance elsewhere has been excellent. For example, extreme value of NS1 strip test was witnessed among travelers at airports in Taiwan. By NS1 antigen detection 19 reverse transcriptase polymerase chain reaction (RT-PCR) negative travelers could be labeled dengue positives. Two such travelers tuned IgM positive only on day 17 or 18 of their illness [2]. Furthermore, in Malaysia, 42 of 55 samples from patients with a clinical diagnosis of acute dengue fever were positive for NS1 but negative by RT-PCR and dengue virus isolation [3].

Subhash C. Arya*
Nirmala Agarwal
Sant Parmanand Hospital,
18 Alipore Road, Delhi, India

*Corresponding author: E-mail: subhashbhapaji@gmail.com

References

[1] M.G. Brown, I.E. Vickers, R.A. Salas and M.F. Smikle, Seroprevalence of dengue virus antibodies in healthy Jamaicans, *Hum Antibodies* **18**(4) (2009), 123–126.
[2] P.Y. Shu, C.F. Yang, J.F. Kao, C.L. Su, S.F. Chang, C.C. Lin, W.C. Yang, H. Shih, S.Y. Yang, P.F. Wu, H.S. Wu and J.H. Huang, Application of the dengue virus NS1 antigen rapid test for on-site detection of imported dengue cases at airports, *Clin Vaccine Immunol* **16**(4) (Apr 2009), 589–591.
[3] P. Dussart, L. Petit, B. Labeau, L. Bremand, A. Leduc, D. Moua, S. Matheus and L. Baril, Evaluation of Two New Commercial Tests for the Diagnosis of Acute Dengue Virus Infection Using NS1 Antigen Detection in Human Serum, *PLoS Negl Trop Dis* **2**(8) (20 Aug 2008), e280.

ISSN 1093-2607/10/$27.50