

## Re: Dengue Haemorrhagic Fever Presenting as Acute Abdomen

رد على: البطن الحادة كعرض لحمى الدنك النزفية

Sir,

We compliment Al-Araimi and colleagues for recommending prospective awareness for medical personnel about different travel-related tropical diseases including dengue fever.<sup>1</sup>

Their 38 year-old Sri Lankan patient<sup>1</sup> tested negative with polymerase chain reaction giving an equivocal result for Dengue IgM. Serum sample(s) collected after two or more months should be tested for Dengue IgG. In all probability, the levels of IgM and dengue virus ribonucleic acid had reached undetectable levels. The demonstration of dengue virus IgG would reconfirm the initial diagnosis.<sup>1</sup>

In countries known to be free of dengue virus infection, travel-related importation would be a problem for clinicians and laboratory personnel. A point-of-care assay for dengue virus non-structural protein1 (NS1) antigen, anti-dengue IgM and IgG would be very practical. During the initial phase of illness, NS1 would be the earliest datable marker in any primary or secondary infection. That would be followed by an appearance of IgM in a primary infection or IgG in a secondary infection.

The results of the 23 dengue-virus positive cases detected at the Narita Airport Quarantine Station, Japan are of interest in this regard.<sup>2</sup> There was almost identical sensitivity of the dengue virus (DENV) NS1 antigen detection by the ELISA and the rapid test. The IgM/IgG detection, employing either the antibody-capture ELISA or the rapid test, was not found to be suitable to identify any DENV-carrying individuals arriving in countries reported to be dengue free.

The utility of a single-step immunochromatographic one step dengue NS1 Ag and IgG/IgM test, (Dengue Duo; Standard Diagnostics, Inc, St.Ingbert, Germany: www.standard.com) was immense during the 2010 DENV outbreak in Delhi, India. Among 175 suspected cases, 86 were NS1 positive and 89 were NS1 negative. Among 86 NS1-positive patients, 23 were IgM positive, four were IgG positive and six were positive for all three markers. The 89 NS1-negative patients included two who were IgM positive, eight who were IgG positive and seven who were positive for both IgM and IgG: 72 were negative for all three markers and 53 patients were positive exclusively for NS1. Using the Dengue Duo test, it was possible to diagnose 61 additional patients: these NS1 positives included 57 who were negative for IgM and four who were positive for IgG only.<sup>3</sup>

To conclude, awareness among medical and health care personnel in dengue free countries<sup>1</sup> as well rapid disease diagnosis would ensure better clinical management and public health response to halt any local dengue transmission.

\*Subhash C. Arya and Nirmala Agarwal

*Sant Parmanand Hospital, Delhi, India*

\*Corresponding Author email: subhashbhajaji@gmail.com

## References

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