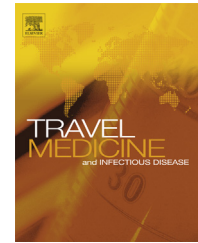




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## CORRESPONDENCE

### First report of imported case of dengue fever in Republic of Serbia



Dear Editor,

we would like to follow up on a recent paper Valerio et al. Authors stated in conclusion that the incidence of dengue and chikungunya is steadily increasing in the North Metropolitan area of Barcelona, a region densely colonized by *Aedes albopictus*, at the entire expense of imported cases (especially visiting friends and relatives travelers) [1].

We report, for the first time, a viraemic dengue primary infection imported from an endemic country (Havana, Cuba) to Republic of Serbia. The patient was admitted to the hospital at early post-febrile period (stage II). Dengue fever was caused by DENV-3 with clinical presentation of febrile illness without progress to more severe and potentially fatal disease involving haemorrhage or shock.

The 43 years old male patient with residence in Kač (Municipality of Novi Sad), Serbia works as a travel guide. The disease started on the same day after return from Havana (2015-09-29), in the evening, by increased temperature, chills and muscle aches. During his last stay in Havana, Cuban health authorities informed him that prior to his stay 2 dengue cases were confirmed from the building he was residing. He was not vaccinated against Yellow fever or Tick-borne encephalitis and his anamnesis did not have previous dengue fever infections.

Serological analysis by indirect immunofluorescence test ("Flavivirus profile 2", Euroimmune, Germany) revealed Dengue 3 virus – specific IgM antibodies. The sample had a borderline result for Dengue 3 IgG antibodies and a negative result for IgM and IgG antibodies against the West Nile virus, Japanese encephalitis virus, and Yellow fever virus.

The case was confirmed as Dengue 3 virus infection by real-time RT-PCR, using "DENV-1-4-RT-PCR" primers and probe kit, provided by CDC (Atlanta, USA). Presence of IgM with borderline result of IgG antibodies accompanied with RT-PCR positive result demonstrated that this DENV-3 infection was primary.

In Serbia, main European vector, *Ae. albopictus* have been registered for several consecutive years in Srem District (ECDC/VBORNET database) [2,3] at locality 100 km away from patient residence. Presence of *Ae. albopictus* had not yet been documented in Municipality of Novi Sad area (high risk/suitable for establishment) [4], which is since 2009 covered by bimonthly adult mosquito surveillance. According to Mahalanobis distance area of Novi Sad is environmentally suitable for dengue transmission [5] and, in the period 2011–2040 rather suitable for chikungunya transmission (imported cases not registered yet). There is only sporadic surveillance of dengue and chikungunya viruses (diagnostics of suspected human cases and mosquito sampling around their dwellings) in Vojvodina Province, and no surveillance in the rest of the Serbia. Dengue fever is not mandatory reportable disease to public health authority of Republic of Serbia.

Risk of introduction and transmission of dengue fever and other emerging and reemerging vector borne diseases in the following period highlights the need for integrated surveillance on vector borne diseases covering insects, ticks as well as animal and human populations.

### Conflict of interest

There is no conflict of interest.

### Acknowledgement

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