



Knjiga povzetkov
Kongres SMD 2017

20. – 22. september 2017
Bled, Slovenija

7. kongres Slovenskega mikrobiološkega društva

EMERGING MOSQUITO-BORNE VIRAL INFECTIONS IN CROATIAN TRAVELERS

Tatjana Vilibić-Čavlek^{1,2*}, Irena Tabain¹, Vladimir Savić³, Ljiljana Betica-Radić⁴,
Nenad Pandak⁵, Božana Miklaušić⁵, Andrea Babić-Erceg¹, Ljubo Barbić⁶, Boris Lukšić⁷,
Svjetlana Karabuva⁷, Vladimir Stevanović⁶, Pavle Jeličić¹, Nataša Bauk¹, Bernard Kaić¹

¹Croatian National Institute of Public Health, Zagreb, Croatia;

²School of Medicine University of Zagreb, Zagreb, Croatia;

³Croatian Veterinary Institute, Zagreb, Croatia;

⁴General Hospital Dubrovnik, Dubrovnik, Croatia;

⁵General Hospital "Dr Josip Benčević", Slavonski Brod, Croatia;

⁶Faculty of Veterinary Medicine University of Zagreb, Zagreb, Croatia;

⁷Clinical Hospital Centre Split, Split, Croatia

tatjana.vilibic-cavlek@hzjz.hr

In recent decades, the number of both imported and autochthonous emerging viral diseases has increased in European countries. We analyzed the frequency of mosquito-borne arboviral infections in Croatian travelers returning from endemic areas. From January 2016 to June 2017, a total of 78 persons with a travel history were tested for the presence of antibodies to the most common mosquito-borne viruses: dengue (DENV), chikungunya (CHIKV), Zika (ZIKV), West Nile (WNV) and Usutu virus (USUV). Serological tests were performed using a commercial enzyme-linked immunosorbent assay and/or indirect immunofluorescence assay (Euroimmun, Lübeck, Germany). In the tested group, there were 44 (56.4%) males and 34 (43.6%) females. The most common travel destinations were South America (Brazil), Central America (Mexico, Cuba, Costa Rica) and Southeast Asia (Thailand). The reason of travel was tourism (58/74.3%), participation at the Olympics/Paraolympics Rio 2016 (13/16.7%) and business (7/9.0%). The mean duration of travel was 28.3 (range 7-90) days. Forty (51.3%) participants reported regular or occasional repellents use and 42 (53.8%) reported mosquito bites. The main clinical symptoms among 24 patients with clinically manifest disease were fever (24/100%), myalgia (10/41.6%), arthralgia (10/41.6%), rash (7/29.2%), and conjunctivitis (3/12.5%). Fifty-four asymptomatic persons were tested because of pregnancy, planning pregnancy or medically assisted reproduction. Recent arboviral infection was documented by detection of IgM and IgG antibodies in six patients. ZIKV infection was detected in three patients (imported from Brazil, Mexico and Maldivi), CHIKV infection in one patient (imported from Costa Rica) and DENV infection in two patients (imported from Maldivi and India). Since *Ae. albopictus* is present in Croatia, imported emerging arboviral infections may have important public health consequences. Public health measures should be regularly performed, particularly in areas with established *Ae. albopictus* population.