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Human West Nile virus infection in Kosovo 2012-2015: A cross-sectional analysis

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Background: Infection with West Nile virus (WNV) has emerged recently as a threat to public health. The most infections are asymptomatic and there is a risk for the disease transmission by infected travellers.

Methods: Eight patients with confirmed WNV neuroinvasive disease treated in the University Clinical Centre of Kosovo during the years 2012-2015 were enrolled in the study. In addition, 453 sera from Gjilani Hosiptal were analyzed. Laboratory confirmation was conducted through detection of IgM/IgG antibodies with immunofluorescence and the virus neutralization test.

Results: Of eight patients with WNV neuroinvasive disease, five (62.5%) patients had encephalitis and three (37.5%) meningitis. In two patients with meningitis, clinical signs of polyradiculoneuritis were observed whereas in one patient with encephalitis a respiratory failure was developed. Among the total number of the patients half of them had comorbidities. At discharge, three (37.5%) were functionally independent (mRS 0–2), and five (62.5%) were functionally dependent (mRS 3–5).

Conclusions: WNV is present in the entire Kosovo, affecting mainly old patients, and presenting with various neurological manifestations. Our data indicates the need for taking into consideration the risk in terms of asymptomatic infected travellers.

Recent Publications

1. Shemsedin Dreshaj, Nexhmedin Shala, Albina Ponosheci, Ajete Aliu-Bejta, Lindita Ajazaj-Berisha (2018) Blood-brain barrier damage as a predictor of outcome in patients with purulent meningitis Archives of Medical Science-Civilization Diseases Vol 3(1): 26-33
2. Shala N , Dreshaj S (2018) Association of depression, anxiety and post-traumatic stress disorder with migraine: Data from Kosovo Neurol Neurochir Pol. 52(4):490-494.
3. Dreshaj S1, Alija AJ2, Schlagenhauf P3, Doda T4, Geca N4, Bajraktari I2, Bresgen N5, Eckl PM5 (2017) Is there a relationship between genetic factors and the incidence and severity of H1N1 in Kosova?: A preliminary investigation and pointers for further research Travel Med Infect Dis. 18:53-56.
4. Shemsedin Dreshaj,1 Nexhmedin Shala,2 Gresa Dreshaj,3 Naser Ramadani,4 and Albina Ponosheci1 (2016). Clinical Manifestations in 82 Neurobrucellosis Patients from Kosovo Mater Sociomed. 2016 Dec; 28(6): 408–411.

Biography

Shemsedin Dreshaj has completed his Medical Faculty in Prishtina University, Kosovo, in 1984. From 1990, he worked as a Senior Infectious Diseases Doctor and served as a Head of Department for Neuroinfections from 1992 to 2018; Head of Infectious Diseases Clinic from 2006 to 2014; and Vice Dean for academic affairs from 2009 to 2013, Medical Faculty in Prishtina University.

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