

## Is West Nile Fever a threat for Polish travelers visiting tropical and Mediterranean areas?

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West Nile Fever is a tropical infectious disease with an acute outcome, classified by the WHO as a member of the group of emerging infectious diseases. It is caused by the neurotropic West Nile Virus, which belongs to the Flaviviridae family. West Nile Fever is a mosquito-borne disease and its main reservoir are sedentary and migratory birds. Infections are the most common in humans and horses. This pathogen is widespread and has become a cause for global concern.

A group of 174 people returning from international travels were examined for the presence of specific antibodies against WNV. Half of the study population were female and half were male, mean age 40 years, range 21–80. The most common travel destinations were Africa (45%) and Asia (35%), while South America (14%), Southern Europe (4%) and Australia (2%) were chosen less frequently. Most patients travelled for recreation and adventure purposes (50%), while the second largest group were missionaries (30%). The most common type of journey was the long-term trip (47%) with a long period of exposure to the mosquito bites. The main risk factors for WNV infection were also studied.

The level of the specific antibodies against WNV in blood serum was measured using ELISA. Additionally, the presence of antibodies against the infectious agents that can cause nonspecific cross-reactions (Lyme disease, TBE) was also investigated.

The control group comprised non-travelling representatives of professional groups particularly exposed to mosquito bites: farmers, animal breeders and foresters. In addition, to confirm autochthonous virus transmission in Poland, an analysis of seropositivity against WNV was performed in a group of people living in rural areas who spend time outdoors. The control group included 55 patients: 26 female and 29 male living mainly in the Wielkopolskie Province. The Podkarpackie, Lubuskie and Podlaskie Provinces were less commonly represented.

It is appropriate to include tests for West Nile Fever in the differential diagnosis of fever in patients returning from international trips. Due to the rapid global spread of the pathogen, it is necessary to inform patients about prophylaxis against mosquito bites during international travel. It is also necessary to consider tests for WNV in patients with meningitis of unknown etiology in neurological wards.