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## Monitoring of opportunistic micro-sporidia in immune-compromised patients in Slovakia

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The importance of opportunistic pathogens, which are able to be agents of disease only if the natural defence mechanisms are damaged and function of immune system is decreased, is growing due to an increasing number of patients with HIV infection/AIDS, as well as other persons with disrupted immune systems due to primary or secondary immunodeficiency. Micro-sporidia are among the opportunistic pathogens that are occurring with greater frequency or severity in patients with impaired host defenses. Therefore, the aim of our study was to map the prevalence of *Encephalitozoon intestinalis* and *Enterocytozoon bieneusi* infection in a group of patients and to compare it with the occurrence of specific antigens in immune-competent people. Detection of spores of both pathogens in fecal samples was performed by an immunofluorescence test using species-specific monoclonal antibodies. Overall, we examined 142 people, including 80 men and 62 women. We compared the relative risk of micro-sporidia between groups of immune-compromised patients and immune-competent persons. The risk of occurrence of micro-sporidia *Encephalitozoon intestinalis* in the group of HIV/AIDS patients was 6.6 times higher, in the group of hemodialysis patients 1.6 times and in the group of renal transplant patients 4 times higher in comparison with the immune-competent persons. The risk of occurrence of micro-sporidia *Enterocytozoon bieneusi* in the group of HIV/AIDS patients was 10 times higher and in the group of renal transplant patients 6.7 times higher in comparison with the immune-competent persons. In the group of hemodialysis patients, the risk of occurrence of micro-sporidia *Enterocytozoon bieneusi* was the same as in the group of immune-competent persons.

### Biography

Monika Halanova has completed DVM Degree at University of Veterinary Medicine in Kosice in 1995 and PhD in Infectious and Parasitic Diseases in 2000. She was honored as Associate Professor in Epidemiology at Pavol Jozef Safarik University in Kosice, Faculty of Medicine in 2008. She works with several labs focusing on the diagnosis of infectious and parasitic diseases and long lasting study stay in Central Laboratory in Abu Dhabi, UAE. Her research takes place at the crossroads of public health, epidemiology and infectious diseases. She has been part of several research projects as principal investigator or scientific co-worker. She has published around 367 scientific papers and abstracts.

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