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## Occurrence of IgG *A. phagocytophilum* antibodies in professional soldiers in Eastern Slovakia

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Human Granulocytic Anaplasmosis (HGA) is emerging tick-borne infectious diseases caused by *Anaplasma phagocytophilum*. In Europe, the first serological evidence of HGA was described in 1995 in Switzerland and first clinical case was confirmed in 1997 in Slovenia. Since then, many European countries, including Slovakia reported occurrence of HGA. Therefore, the aim of the study was map the occurrence of IgG *A. phagocytophilum* antibodies in group of professional soldiers. A total 322 human serum samples (296 men and 26 women) were analyzed for the presence of antibodies against *A. phagocytophilum*. Anti-*A. phagocytophilum* IgG antibodies were detected by the focus diagnostics indirect immunofluorescence antibody IgG test, which is intended for the detection of human serum IgG class antibodies to *A. phagocytophilum*, as an aid in the diagnosis of HGA. Blood sera were processed and results interpreted according to the test producer. Of the total number of 322 examined people, 67 (20.8%) showed positivity for IgG antibodies against *A. phagocytophilum*. Out of 67 positive people, 35 have positive anamnesis for tick bite. The real infection rate of HGA in Europe is still hard to establish. Sero-prevalence rates range from zero to up to 28.0%. No official epidemiological data on the prevalence of this infection in the human population are available in Slovakia. Only a few studies have been published relating to anaplasmosis, with results of prevalence ranging from 7% to 25%. The total prevalence of *A. phagocytophilum* antibodies in our sample (20.8%) corresponds with the findings of these studies.

### Biography

Zuzana Kalinova has received her Medical Doctor Degree at Pavol Jozef Safarik University, Medical Faculty in 1995 and her PhD degree in Public Health in 2011. Since 2006 she has worked as a senior research at Pavol Jozef Šafárik University in Košice, Medical Faculty, Department of Epidemiology. Her research activities are oriented on different fields of epidemiology, mainly on the field of vector-borne diseases. She is co-worker of several research projects. To this time, she published 147 scientific papers and abstracts.

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