

## Occurrence of *Echinococcus multilocularis* and *E. granulosus* seropositivity in Roma and non-Roma population of Eastern Slovakia

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Alveolar (AE) and cystic echinococcosis (CE), serious parasitic diseases caused by larval stages of *Echinococcus multilocularis* and *E. granulosus* has been diagnosed in Slovakia for a long time. Humans acquire infection after the accidental ingestion of *Echinococcus* spp. eggs and subsequently larval stages proliferate primarily in the liver. Metacestodes of *E. multilocularis* are also able to spread into extrahepatic structures and metastasize to other organs and can cause the death of untreated patient in ten to fifteen years after the diagnosis. Roma people belong to one of the largest minorities in Europe. Approximately one sixth of the Slovak Roma population live in segregated settlements that are characterised by poor socioeconomic conditions and health status of their inhabitants. The aim of the study was to compare the seropositivity to *Echinococcus multilocularis* and *E. granulosus* in Roma population of segregated settlements of Eastern Slovakia with the seropositivity of non-Roma majority inhabitants. Antibodies to *E. multilocularis* were detected in 4 (0.93 %) out of 429 Roma people and only in one (0.25 %) of 394 non-Roma persons, but there was no statistical significance between observed seroprevalence ( $p = 0.18$ ). Similarly, no significant differences ( $p = 0.28$ ) were observed in the seropositivity to *E. granulosus*; antibodies were recorded in two (0.47 %) Roma and in three (0.76 %) non-Roma people. All five AE seropositive persons were women, while the seroprevalence of CE dominated in men (4 positive men, 1 woman). We can conclude that despite undoubtedly worse hygienic conditions in the segregated settlements, there were not any significant differences in the prevalence of both, AE and CE, between inhabitants of Roma settlements and majority population. Predominant source of *Echinococcus* spp. infective eggs in Slovakia present wild carnivores that contaminate their habitats. The infection risk is probably connected more with the contact with contaminated environment than with the live in the segregated settlements.

The research was supported by the Slovak Research and Development Agency APVV project APVV-15-0114.