

P2245

Abstract (poster session)

**Investigations on rodents in Bulgaria for human pathogens**

I. Christova\*, E. Mohareb, H. Dimitrov, V. Mitkovska, I. Trifonova, N. Kalvatchev, T. Gladnishka, T. Kantardjiev (Sofia, BG; Cairo, EG; Plovdiv, BG)

**Objectives:** Small mammals are reservoirs of various human pathogens – borreliae, anaplasmae, hantaviruses. In rodents, these pathogens often persist during their whole life. They might be transmitted to humans by ticks (borreliae, anaplasmae) or directly through rodent excreta (hantaviruses), causing sometimes life-threatening infections. The aim of this work was to investigate infections with human pathogens in rodents trapped in different regions of Bulgaria. **Methods:** A total of 284 rodents were investigated by polymerase chain reactions (PCR) for detection of flagellin gene of borreliae in *Borrelia burgdorferi* sensu lato complex, ankA gene of *Anaplasma phagocytophilum* and nucleoprotein gene of hantavirus Dobrava. **Results:** Borreliae were detected in 64 (22,5%) of investigated rodents by PCR: 41 samples originated from *A. flavicollis*, 20 from *A. agrarius*, and 3 from *A. sylvaticus*. *Anaplasma phagocytophilum* infection was found in 33 (11,6%) of the rodents and the most infected rodent species was *A. agrarius* 13/96 (13,5%). In addition, hantavirus Dobrava RNA was detected in 9 of the rodents. **Conclusion:** The high rate of detection of *A. phagocytophilum* in rodents from *A. agrarius* species suggested that this species might serve as major reservoir of human anaplasmosis in Bulgaria. Remarkably, a high number of rodents from genus *Apodemus* were infected with borreliae. Mainly infected with hantaviruses were *A. flavicollis* mice, known as reservoir of Dobrava hantavirus but hantavirus infections were detected also in *A. agrarius* mice.