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**O55****PREVALENCE AND GENETIC CHARACTERIZATION OF *ECHINOCOCCUS GRANULOSUS* IN DOMESTIC RUMINANTS IN NORTH MACEDONIA**

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Cystic echinococcosis is a zoonotic disease with worldwide distribution caused by the larval form of *Echinococcus granulosus (sensu lato)*, present in rural communities where raising livestock dominates. The aim of this study was to evaluate the current prevalence of echinococcosis and to perform molecular identification of hydatid cysts taken from previously slaughtered cattle and sheep from several regions in the Republic of North Macedonia. Post-mortem inspection of the internal organs of the slaughtered animals was conducted in order to detect hydatid cysts. Fertility and sterility of the cysts was determined with microscopic examination. The DNA was extracted from the protoscoleces and the cyst wall. The genotypes were differentiated by sequencing the *cox 1* mitochondrial gene. Sixty percent of the tested cattle and sheep were positive for cystic echinococcosis. The hydatid cysts were present in the lungs and the liver. Twenty cysts taken for molecular analysis (12 from cattle and 8 from sheep) were identified as *Echinococcus granulosus (sensu stricto)* (G1-G3 genotype complex). High fertility rate in sheep confirmed the transmission cycle between them and the dogs and highlighted a high potential risk of zoonotic infection. The results confirmed that North Macedonia is an endemic region with G1-G3 complex of *Echinococcus granulosus* being the predominant circulating genotypes in domestic ruminants in different regions of the country. Active surveillance of livestock should be implemented, as well as raising public awareness about infected organ management and regular treatment of dogs with antiparasitic drugs.

**Key words:** cystic echinococcosis, domestic ruminants, prevalence, genotypes