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Sarcocystis spp. are cyst-forming protozoa parasites. They maintain prey-predator two-host life cycle. Sarcocysts, as an asexual vital form, are formed in the muscles and CNS of the intermediate host, and oocysts/sporocysts, as a result of sexual multiplication, develop in the small intestine of the definitive host. Birds of prey are usually studied as definitive hosts while their role as intermediate hosts are poorly described.

In the period of 2014-2020 various birds of prey within Accipitriformes, Falconiformes, Strigiformes orders were collected. Legs and/or chest muscles were methylene-blue stained, when prepared by squash method and analysed under a light microscope (LM). Microscopic sarcocysts were detected in *Accipiter gentilis*, *Buteo buteo*, *Strix aluco* and *Asio otus* (4/27 14,8%). Based on ITS1 region sequence analysis sarcocyst isolated from *Buteo buteo* muscles was identified as *S. halioti*. Intestinal scrapings were analysed by direct light microscopy. Oocysts/sporocysts were detected in *Buteo buteo* (5/7, 71.4%), *Accipiter gentilis* (11/11), *Buteo lagopus* (2/2), *Milvus migrans* (1/1), *Strix aluco* (1/3 33.3%). Further molecular examinations are needed for *Sarcocystis* spp. found in intestinal samples.

As pathogenic *Sarcocystis* species, *S. halioti* was isolated from muscle tissue other internal organs such as brain, lungs and liver must be investigated. Studies should be performed to determine which species of *Sarcocystis* spp. are excreted with faeces to the environment, as well to identify vital organ infestation.

Keywords: *Sarcocystis*, Accipitriformes, Falconiformes, Strigiformes, molecular identification

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