

Autochthonous infection with nematodes of the genus *Dirofilaria* in dogs in north-western Poland

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Exposure to the risk of mosquito bites in dogs is an important factor contributing to the development of populations of nematodes *Dirofilaria repens* and *D. immitis* in Poland. Native species of mosquitoes have been proven to be vectors of these parasites. Although these nematodes have been known in Poland for more than 10 years and can be the cause of zoonotic disease in humans (subcutaneous and pulmonary dirofilariosis), awareness of this problem among both dog owners and veterinarians remains low. In north-western Poland dogs are tested for dirofilariosis sporadically and during diagnosis of tick-borne diseases, as commercial tests are often constructed to detect several parasitic infections at once (e.g. *Dirofilaria immitis* + *Anaplasma phagocytophilum*/A. platys + *Borrelia burgdorferi* + *Ehrlichia canis*/E. ewingii – SNAP 4Dx Plus test by IDEXX).

From January 2020 to June 2021 microfilariae were detected in the blood of six dogs, including

four whose medical history indicated an increased risk of infection, i.e. neglect due to inadequate care by the owner and/or time spent at a shelter. In one dog whose blood contained microfilariae, the SNAP 4Dx Plus test revealed infection with *D. immitis*. One drop of fresh blood – 100 microlitres – contained about 150 live microfilariae. In the other infected dogs, the presence of microfilariae of *D. repens* was diagnosed on the basis of L1 morphological features.

The preliminary results suggest that prevalence of infection with *Dirofilaria* in north-western Poland is higher than previously published studies suggest.* To confirm this, however, it would be necessary to test mainly dogs that spend most of their time outdoors, and prevalence should be determined in groups of dogs with a similar way of life.

*References available from the authors.