



## P 8 Tick-borne diseases in dogs in Latvia

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There have been isolated case reports of tick-borne diseases (TBDs) in dogs in Latvia, but no studies have been conducted so far to determine the prevalence of canine TBD in Latvia. Our aim was to evaluate the prevalences of anaplasmosis, Lyme disease, and ehrlichiosis in dogs in Latvia.

Clinically healthy dogs (n=316) and dogs with clinical signs suggestive of TBD (sick dogs, n=27) were enrolled in the study. A total of 2 ml of EDTA-stabilized blood was drawn from each dog. Antibodies against *Anaplasma phagocytophilum*, *Ehrlichia canis*, and *Borrelia burgdorferi* were detected (IDEXX SNAP 4Dx test also detects *Dirofilaria immitis* antigen). In 2 clinical cases, *Babesia* spp. organisms were detected by conventional PCR (IDEXX, Ludwigsburg, Germany). Seroprevalence was calculated in the groups of healthy versus sick dogs. We also assessed if seropositivity for anaplasmosis was different in hunting (n=34) versus non-hunting (n=282) healthy dogs.

Seroprevalence for *A. phagocytophilum* was 11% (36/316) in healthy and 22% (6/27) in sick dogs. There was no statistically significant difference in seropositivity to anaplasmosis between healthy hunting and non-hunting dogs ( $z=-0.3$ ,  $\alpha=0.5$ ). Three percent (9/316) of healthy dogs had antibodies against *B. burgdorferi*. There were no healthy dogs seropositive for *Ehrlichia*. Antibodies against both *B. burgdorferi* and *A. phagocytophilum* were found in 1% (3/316) of the healthy dogs. *Babesia* spp. organisms were detected in the sick dog group (2/27); both dogs had travelled to Germany. About 7% (2/27) of the sick dogs had antibodies against multiple bacteria (*Babesia* and *Anaplasma*, *Ehrlichia* and *Anaplasma*).

Of the 3 TBDs investigated, the highest seroprevalence was against *A. phagocytophilum*, and clinical anaplasmosis was diagnosed in 6 dogs. Hunting does not seem to be an additional risk for anaplasmosis to occur in dogs in Latvia.