Summary

An investigation of Lyme disease in dogs

The aim of the present study was to diagnose Lyme disease in healthy and potentially infected dogs as the disease is associated with risks for human health and causes economical losses nationwide.

For this purpose, dogs obtained from dog kennels in central Aydin, Aydin/Kusadasi, Aydin/Germencik and Izmir/Selcuk as well as dogs brought to the Department of Internal Medicine at the Faculty of Veterinary Medicine, Adnan Menderes University, one hundred and forthy (140) in total, were used. Dogs went through physical examination, their breed, age and genders were determined and serum samples were taken to diagnose the disease. The level of IgG antibodies against *Borrelia burgdorferi* was determined in each individual serum sample using ELISA.

In the present study, 49 out of 140 dogs (35.0%) had IgG antibodies for *Borrelia burgdorferi*. Geographical distribution of 49 seropositive dogs were as follows: 6 (12,2%) in Central Aydın, 9 (18,3%) in Aydın/Kuşadası, 4 (8,1%) in İzmir/Selçuk, 11 (22,4%) in Aydın/Germencik. Among dogs brought to the Department of Internal Medicine at the Faculty of Veterinary Medicine 19 (38,7%) were seropositive.

While 27 out of 49 (55.1%) seropositive dogs were observed to have clinical findings associated with the Lyme disease, no clinical findings could be observed in 22 of them (44.9%).

In conclusion, it is our opinion that the data obtained from the present study might serve as a reference and might be useful to diagnose *B. burgdorferi* using more advanced diagnostic techniques in a higher number of dogs.

Key words: Lyme disease, *Borrelia burgdorfer,* dog