

# Lyme disease in dogs

One morning at the end of January 2011 Nick's (Terrier 3 years old) body temperature had 39.8 fever and he was apathetic. The visit to the veterinary clinic revealed a tonsillitis (inflammation with difficulty in swallowing). The vet prescribed amoxicillin 10mg per kg bodyweight for 10 days. Fever and other symptoms disappeared for about 3 weeks.

The following were symptoms such as phase occurring incontinence in previously safe house-training, increased body temperature to fever, skin itching, loss of appetite, nausea with vomiting, fatigue, sometimes apathy. Tripping over his front paws, limping alternately with left and right feet - lasting for a few minutes. During this time he worked on the joints of the front and hind legs with his teeth, but without inflicting skin injuries. I was disturbed and had laboratory testing for infections, eg Lyme disease etc., but negative. In addition, all possible tests have been carried out on food intolerances and skin parasites - all of them were negative.

In 2011, Nick had a total of 4 ticks that were removed after short suction times. He was treated from puppy stage to monthly time with so-called repellent products, the latest generation (Advantix, Scalibor etc.) and I searched several times daily for ticks. One can almost certainly assume that Nick had no further tick bites.

In 2012 we discovered on Nick the first fully engorged tick the size of a pinheads in March, we assume less than 3 hours of sucking time.

There they were again so familiar to me: The well known previous symptoms – only in a different order and degree. This time with

1. Incontinence
2. limping for a few minutes - from right to left alternately
3. nausea
4. loss of appetite
5. vomiting
6. fatigue
7. sometimes apathy
8. tripping over his front paws, etc.

Prior to the occurrence of these symptoms, he again regularly nibbled at his joints of the front and hind legs with his teeth. This behavior turned out to be a kind of an "early warning system" that Nick was dealing with the disease.

The first laboratory analysis was in May 2012, at a laboratory specializing in parasitosis. This lab is designed - in contrast to the large laboratory chains – for individual analyzes. That means each sample is separately looks at though the microscope.

The result was a positive test for Borrelia IgG 1:128 (that means Lyme disease in dogs) - proof for the presence of immunoglobulin G (IgG) for Borrelia. This parameter is an indication for earlier contact with the pathogen. It shows up in a time between 4 and 8 weeks after the tick bite. This is called the late phase of infection. This was

followed by antibiotic therapy with *doxycycline monohydrate* tablets 100 mg (from human medicine) from 22/05/2012 to 20/06/2012. The dosage was 10mg per kilogram of body weight every 12 hours. Nick was symptom-free for longer than 2 weeks.

In early July Nick had a tick nymph that was killed by Advantix. He was chewing his joints of the front and hind legs..... About a week later, Nick showed very strong balance problems. For about half an hour he appeared as if being drunk or as though he was having an epileptic seizure. After this episode everything was back to normal. The next day he had a high fever (40.5) and at this time he showed all the clinical symptoms of the past but significantly more pronounced.

He was given a new test for Lyme disease because the laboratory analyst suspected re-infection with Lyme disease or anaplasmosis.

This time the result showed two positive tests for Lyme disease: IgG (late phase) 1:128 and IgM (early phase) 1:256.

Nick was treated again for 6 weeks with doxycycline monohydrate tablets 100 mg from human medicine – he was treated every 12 hours - dosage 10mg per kilogram of body weight.

In the years 2012 and 2013 three relapses followed. They were treated at an early stage of the symptoms - biting of the joints, including the other typical symptoms of Lyme Borreliosis in humans and dogs. These symptoms disappeared after antibiotic treatment of 4 weeks. Now the symptom-free intervals are longer.