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Anaplasmosis

What is Anaplasmosis?

Anaplasmosis is an infection caused by the bacteria Anaplasma phagocytophilum (formerly called Ehlichia equi) that can be spread to dogs by the bite of a tick, especially deer ticks. These are the same ticks that spread Lyme disease, which are very small and very populous in the Buzzards Bay and Dedham areas. Like Lyme disease, Anaplasmosis can also infect humans and wildlife, from the bite of a tick. Both Lyme disease and Anaplasmosis are endemic in the Buzzards Bay and Dedham areas. Humans can not catch this disease directly from dogs but can catch it from tick that they bring inside.

What are the signs of Anaplasmosis?

Anaplasmosis infection can cause lameness, lethargy, fever, petechia (bruising of gums or skin) and loss of appetite in dogs. Some dogs do not get symptoms and some become very sick from the infection. It is common for dogs to have an infection with Lyme as well as Anaplasmosis at the same time. The symptoms of Lyme are very similar to the symptoms of Anaplasmosis and it is often difficult to tell if one or both of the infections is causing the symptoms.

Anaplasmosis can cause deficiencies of platelets (blood clotting cells). If this deficiency is severe it can lead to bruising and severe, life-threatening bleeding. Anaplasmosis can also cause decreases in white blood cells, red blood cells and changes in the serum chemistry.

How is Anaplasmosis detected?

Detection of the organism is difficult because it is hard to catch in action. After a dog is infected the organism can be seen in blood cells but sometimes only for a few hours so it is often missed. A new diagnostic test is now available, the 4DX snap test, which detects antibodies to the organism. This test can be run in the clinic in about 10 minutes and also detects antibodies to Lyme, Ehrlichia canis (another tick borne disease), and Heartworm disease. If your dog's 4DX test is positive for Anaplasmosis then he or she has been exposed to the organism by the bite of a tick at some point. Some dogs will remain positive on this test for months or years after exposure, even if they are treated. Dogs showing exposure to Anaplasmosis on the 4DX test should have serum chemistry, complete blood count and urinalysis performed to check for abnormalities. If problems on bloodwork are found then they can be rechecked after instituting treatment. There is a new PCR test which can detect very small amounts of DNA from the organism in a dog's blood. This may help determine if there is a new infection in dogs that are chronically positive on the 4DX test. Anaplasmosis is often contracted with other tick-borne diseases, such as Lyme, which can cause abnormalities of the urinalysis.

How is Anaplasmosis treated?

Doxycycline is the treatment of choice for Anaplasmosis. In most dogs, their symptoms respond remarkably well within the first few days of treatment. For many cases doxycyline may be the only treatment that is needed. If the lameness or fever are severe then often NSAIDS (non-steroidal anti-inflammatory drugs) are used to control these symptoms. If bloodwork abnormalities or bruising are detected then more extensive treatment and diagnostics are often needed.

How can I prevent Anaplasmosis?

Vigilant tick control is the best means of prevention for Anaplasmosis. There is currently no vaccine available for Anaplasmosis. We recommend Frontline™ applied once per month between the shoulder blades of your dog all year around. Frontline will kill ticks before they attach. Some ticks are able to attach despite Frontline being present, but these are usually killed in 12 hours. These ticks will remain attached, but will be dead. The Preventick collar is recommended as a tick preventative in households without cats or small children. **After walking your dog, you should check him or her for ticks and promptly remove any that you find. This is the most effective way to prevent diseases spread by ticks.**